

The American Journal of Pharmaceutical Education

PROCEEDINGS NUMBER

**THE OFFICIAL PUBLICATION OF THE AMERICAN
ASSOCIATION OF COLLEGES OF PHARMACY.**

**Summary of the Proceedings of the Annual Meeting at
Minneapolis, Minnesota, August 22-23, 1938**

Volume II

October, 1938

Number 4

INSTITUTIONS HAVING MEMBERSHIP IN THE ASSOCIATION WITH DELEGATES IN ATTENDANCE AT THE 1930 MEETING

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University of Alabama, College of Pharmacy, Tuscaloosa; Dean: L. H. Hays, Dean; Louis G. Hays, Dean (1929).

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2. St. Louis, Mo., September 19-20, 1901
3. Philadelphia, Pa., September 12-15, 1902
4. Mackinac Island, Mich., August 3-5, 1903
5. Kansas City, Mo., September 7-8, 1904
6. Atlantic City, N. J., September 5-7, 1905
7. Indianapolis, Ind., September 5-6, 1906
8. New York, N. Y., September 4-5, 1907
9. Hot Springs, Ark., September 8-10, 1908
10. Los Angeles, Calif., August 17-18, 1909
11. Richmond, Va., May 4-5, 1910
12. Boston, Mass., August 16-17, 1911
13. Denver, Colo., August 20-22, 1912
14. Nashville, Tenn., August 20-21, 1913
15. Detroit, Mich., August 25-26, 1914
16. San Francisco, Calif., August 6-7, 1915
17. Philadelphia, Pa., September 1-2, 1916
18. Indianapolis, Ind., August 27-28, 1917
19. Chicago, Ill., August 12-13, 1918
20. New York, N. Y., August 25-26, 1919
21. Washington, D. C., May 5-6, 1920
22. New Orleans, La., September 5-6, 1921
23. Cleveland, O., August 14-15, 1922
24. Asheville, N. C., September 3-4, 1923
25. Buffalo, N. Y., August 25-26, 1924
26. Des Moines, Iowa, August 24-25, 1925
27. Philadelphia, Pa., September 13-14, 1926
28. St. Louis, Mo., August 22-23, 1927
29. Portland, Me., August 20-21, 1928
30. Rapid City, S. Dak., August 26-27, 1929
31. Baltimore, Md., May 5-6, 1930
32. Miami, Fla., July 27-28, 1931
33. Toronto, Canada, August 22-23, 1932
34. Madison, Wis., August 28-29, 1933
35. Washington, D. C., May 7-8, 1934
36. Portland, Ore., August 5-6, 1935
37. Dallas, Texas, August 24-25, 1936
38. New York, N. Y., August 16-17, 1937
39. Minneapolis, Minn., August 22-23, 1938

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THE AMERICAN JOURNAL

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PHARMACEUTICAL EDUCATION

Volume II

October, 1938

Number 4

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Reporter on Biological Abstracts

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EARL R. SERLES
PRESIDENT, 1938-1939

Earl R. Serles

The father, Francis Marion Serles, and the mother, Sarah Genevieve French, were natives of Wisconsin. They married and homesteaded in western Kansas in the early eighties. Later they moved to a farm near Salem, South Dakota, and there on November 18, 1890, Earl R. Serles became a native son and the anlage of the thirty-eighth president of the American Association of Colleges of Pharmacy. On those boundless plains that have for centuries served as a battle ground for the winds, his parents fought nature in her most cruel manifestations. They won and came to be numbered among the Giants of the Earth. Under such conditions the babe grew and learned to fight. But the same conditions that taught him to fight, instilled into him the spirit of cooperation and helpfulness to others that has marked his entire career. He was graduated from the Salem High School in 1909. In 1911 he received his first diploma from the South Dakota State College, indicating accomplishment in pharmaceutical endeavor. This was repeated in 1915 and again in 1917, showing further attainment in pharmacy. In this same year he met his master and became the husband of Daphne Chapman, who was also a graduate of the same college, but in home economics. In 1934 he received the Doctors degree in pharmacology from the University of Minnesota. From 1912 to 1923 he passed through all the grades of work at the State College from a student assistant in pharmacy to the deanship of the Division of Pharmacy. At the same time he acquired retail store experience and helped win the war as a member of the Madison, Wisconsin, Medical Unit, in charge of the work in the toxicological division. In the years that followed he occupied many responsible positions in fraternal orders and has been active in the American Legion. He had every honor within his state that could be given him by his fellow pharmacists in whose behalf he labored. In cultivating a spirit of comradery and helpfulness with the related professions he has been both a power and a pioneer. He is a member of numerous honorary and scientific societies and in national pharmaceutical affairs he has left a trail of accomplishments behind him. He holds membership in the South Dakota Pharmaceutical Association, the South Dakota Academy of Science and is a member of the Advisory Council of the South Dakota Public Health Associ-

ation. He has been Chairman of the Interprofessional Relations Committee and a member of the Revision Committee of South Dakota Pharmacy Laws. He belongs to Tau Chapter of Rho Chi and Gamma Alpha at the University of Minnesota. He holds membership in the American Pharmaceutical Association, has been a member of the Syllabus Committee, the Committee for the Establishment of Student Chapters, and Chairman of the Committee on Activities of Students and Alumni. He has been vice-president of the American Association of Colleges of Pharmacy, is a member of the House of Delegates of the American Pharmaceutical Association and is a member of the Revision Committee of the United States Pharmacopœia. In the field of scientific endeavor he has contributed to the enrichment of pharmacological and pharmaceutical literature. His researches have been in the field of the pharmacology and toxicology of chenopodium and studies in local anesthesia. But above all he is a human being. He likes to hunt and fish and refinish old furniture. He has a keen appreciation of good music, good literature and the fine arts, but to the home folks his outstanding characteristic is his willingness to serve. It is in that same spirit, Mr. President, that today we extend to you our hands and pledge our support in an honest effort to have the coming year filled to the brim with worthwhile accomplishments in the field of pharmaceutical education.

RUFUS A. LYMAN.

The schools of pharmacy must believe in themselves, and keep faith with themselves, and with the public, if they expect to get the kind of public support that that branch of professional health education deserves and for which I believe the public is willing to pay. Let us, with a new spirit, determine in pharmacy to serve adequately and well future generations. Let us lead future generations to understand the necessary values in this service. Let us establish our objectives and decide on a way of reaching those objectives, so that our achievements of the future years will enable us to voice, with conscientious satisfaction, that vision from Revelations, "I saw a new heaven and a new earth, for the first heaven and the first earth were passed away."—Harry C. Byrd, President, University of Maryland.

A Message from the President

The thirty-ninth annual convention of the American Association of Colleges of Pharmacy held in Minneapolis, August 22 and 23, 1938, under the able leadership of President Hugh C. Muldoon, presented a program filled with constructive thought for each and every administrative officer of all of the colleges holding membership in the association. It further demonstrated that the staff members of the respective colleges have an opportunity to share in the responsibility of the future development of American Pharmacy. It provided the ground work for the elimination of those petty differences of personal opinion which so often impede a well-intended progressive program.

In my opinion, the future of American Pharmacy rests in a large measure upon our willingness to approach the problems that confront us openmindedly and to accept whatever task may be assigned to us with unstinted endeavor.

Since the enactment of almost universal prerequisite legislation, it is evident that the character of the pharmacist of the future will depend in the major part, upon the scholastic standards, the inspirational direction, and the professional integrity which our schools and colleges supply. Neither should we lose sight of the fact that the profession of pharmacy is only one of the five important professions upon which the modern civilization is dependent in all matters pertaining to public health.

I therefore enjoin you to exert every effort possible in the establishment of inter-allied organizations within your state, your college and your community, bearing in mind that the layman is dependent upon your counsel for the proper establishment of legislation which shall ensure a sound professional practice of the healing art. Let us, therefore, each day, so direct our energy that the coming convention in Atlanta may find us worthy of our calling.

EARL R. SERLES.

Address of the President of the American Association of Colleges of Pharmacy at Minneapolis, August 22, 1938

HUGH C. MULDOON
School of Pharmacy, Duquesne University

The purpose of the American Association of Colleges of Pharmacy, as stated succinctly in its Constitution, is to promote pharmaceutical education and research. We realize the many ways by which, through the years, this Association has furthered the progress and development of education. We are familiar with its more recent achievements in the encouragement of research. We know that the comparatively favorable position of pharmaceutical education today is due almost wholly to the vision, the understanding, the determination, and the hard work of this Association and its members. Always this group has stood for progress. There have been periods of slow plodding, perhaps, as well as times of sharp advance; but seldom since the rise of this organization has pharmaceutical education stood still for long. There has been rapid general progress, too, and the question naturally arises as to how well the American Association of Colleges of Pharmacy is functioning at the present time. Has it gone forward? Is it now doing all that may fairly be expected of it? Is it meeting contemporary needs?

An organization like ours, if it is to function effectively, must periodically reexamine and reappraise itself to determine if it is properly fulfilling its purposes and obligations, and to learn if it is taking full advantage of its opportunities. We should be willing and able to examine our Association and its work coolly and objectively, and either defend and justify our procedures, or else change and improve them. It is important that we discover what influences and pressures, if any, are at work. Tradition, custom, or inertia may, undetected, be slowing progress. We must be sure that our organization is flexible enough to meet the special needs of the times, and that so far as it may, it effects a satisfactory compromise between the continuing demands of the past and the progressive evolution that every profession experiences.

The wholesomely frank comments on the conduct of our Association in general, and of the 1937 meeting in particular,

published in the American Journal of Pharmaceutical Education soon after our last year's meeting, seem to indicate that at this time an examination of at least a few of our practices and policies may serve a good purpose. This Association is indebted to the men who so candidly expressed their views, and to the Editor who published them. Parenthetically, I should like to state that in my opinion this one service fully justified the founding of the Journal.

A number of our procedures were thought to be commendable. Some of the unfavorable criticisms were, I believe, well founded; others may have been based on misinformation or misunderstanding. But, right or wrong, they express thoughts that are in the minds of men who care enough about our Association, its conduct, and its future to be disturbed by practices and ideas they believe to be wasteful, or ineffective, or wrong.

One of the honest criticisms frequently voiced is that the American Association of Colleges of Pharmacy is an association of deans, an organization in which young teachers seemingly do not have a chance. Deans do, and must, I believe, play a very important part in directing the work of this organization. The deans might be reluctant to do so if they did not have constantly before them the fact that the American Association of Colleges of Pharmacy is an association of colleges, not of individuals. The deans, not the subordinate faculty members, are the responsible officers of their schools. It is they, not the teachers, not the department heads, who are accountable to their respective academic organizations. But, even if we should grant for the moment that this Association is, in a sense, an association of deans, it doesn't necessarily follow that the young teacher must be neglected, or that the deans can, or will, or want to do all the Association work. The Constitution would have it otherwise. At our conventions, faculty members, whether formally certified as delegates or not, by custom are granted the privilege of the floor. Each college may certify as delegates to our Convention as many members of its faculty as it cares to designate, and the Constitution definitely gives them the right to participate in our meetings, making only the restriction that in the transactions of the Association each college shall be entitled to but one vote. Faculty members may hold office, take part in discussions, and serve on any committee to which they may be appointed or elected. So far as I am aware,

practically all the offices of this Association at one time or another have been held by persons of subordinate faculty rank. At the present time, the chairmen of some of our most important committees, and nearly 60 per cent of our committee members, are not deans.

In the recent past a few, but not many, of the younger teachers have taken advantage of the convention privileges which are theirs. Possibly others were not aware of the situation. No one can be made to become actively interested in this Association and its work, but it is evident that only as younger men demonstrate their willingness and ability can the affairs of the Association be entrusted to them. No one, however, should expect an important assignment until he has demonstrated his fitness in lesser positions, preferably, but not necessarily, in the American Association of Colleges of Pharmacy. Young men have opportunities to show their worth in the work of local associations, in regional meetings of Boards and Colleges, in state associations, in the American Pharmaceutical Association, in helping to revise the Syllabus, in writing for the various professional journals, and in other ways. Just now, for example, the Sub-section on Pharmacy of the American Association for the Advancement of Science offers a new opportunity for service to ambitious teachers. It challenges them to make its programs as important and valuable and dignified as are those of any of the other sciences. No activities of this sort that young teachers engage in remain unnoticed, for it is the duty of the older men of this Association to encourage and develop responsible leaders who are not destitute of capacity. The duty is not taken lightly.

I feel that within our own organization many young teachers have failed repeatedly to take advantage of an excellent opportunity of helping themselves and of assisting others. For some time there has been concern at the tepid interest in the four teachers' conferences that are a part of our annual program. To persons who earn their living by teaching, such conferences should be one of the most important features of our meetings. They are not. The conference programs generally have lacked lustre. The meetings have been poorly attended. These criticisms do not hold for each conference every year, but the general lack of sustained interest in these conferences is a grave reflection on pharmaceutical educators and the interest they take in their work.

This year, the officers of the conferences made unusual

efforts to arrange interesting and valuable programs. Eventually they were able to obtain valuable contributions, but the response to invitations to participate, sometimes to repeated invitations, sent to scores of teachers in colleges of pharmacy, was most discouraging. There was but slight interest, and almost no cooperation. Yet, for several years the conferences have offered to every teacher, young and old, an opportunity to express himself publicly, to air his views, and to make himself better known. They enabled him to discuss his teaching problems with other workers in his field, and, possibly, to learn from others wiser or more experienced than himself. Through these conferences the young teacher could have been stimulated to make new and fresh approaches to his tasks. He could have been made conscious of new opportunities that await exploration.

But these desirable things have not happened. The conferences as they are now conducted do not attract. Perhaps, they do not fill a need. Either a change in procedure should be adopted and the work done well, or the conferences should be discontinued. Possibly there has been too great a division of interest. One well-planned and well-prepared program of general appeal, with one large group in attendance, might be possible where four separate conferences seemingly cannot operate to advantage. The work of the various groups is so interrelated that a joint program helpful to all could be arranged. Teachers profit, too, by contact with methods and materials and personalities that have no direct connection with their own specialties. Therefore, I RECOMMEND, that as an experiment, for one year, we combine the four teachers' conferences into a single group which will function this year under the chairmanship of the teacher chosen today to act as chairman of the conference on pharmacy. The secretary of the chemistry teachers' conference will act as secretary for the combined groups. These officers, together with the other newly elected officers of all the conferences, will serve as a committee to arrange for next year's meeting a program of general interest. If this plan is adopted and is successful, arrangements for its continuance can be made at the 1939 meeting. If it fails, other action can then be taken.

Much of the authority and prestige of this Association has come from the fact that for a long time, whether it wanted to or not, it has served as an accrediting agency for colleges of pharmacy. It has, however, made no attempt to set standards

for all colleges of pharmacy. Its requirements apply to its own member colleges only. Despite ever higher standards for admission to the Association, membership continued to be eagerly sought. Membership was considered an evidence of academic and professional respectability. The Association's care and expertness in evaluating colleges of pharmacy became so highly regarded that certain states by law or Board ruling require that all colleges whose work they recognize shall be members of the American Association of Colleges of Pharmacy. We know that much good has been accomplished through our self-inspection service, but the time has now come, I believe, to surrender voluntarily our work of accreditation to the American Council on Pharmaceutical Education, the independent standardizing agency which this organization helped to create, in which it participates, and whose standards for accreditation of colleges it has formally approved. The Council's work of inspecting colleges has already begun. The Council is an organization separate and distinct from this group. Membership in the American Association of Colleges of Pharmacy has no direct bearing on accreditation by the Council. Its study of the individual schools who make application to it for recognition is carried out independently by committees which the Council itself appoints.

In pharmacy, two accrediting agencies are not needed. Duplication of work should be avoided. The accreditation of colleges is the chief function of the American Council on Pharmaceutical Education. This Association has many other important things to do. We may well yield our accrediting powers, but should we do so, we must appreciate that by such an act our Association may stand to lose considerable strength. Membership in this Association would not be so essential. Schools might seek accreditation by the American Council on Pharmaceutical Education and, receiving it, fail to continue as members of this Association. Such action is possible, but not probable. The situation can be met if, and when, it arises. Willingness on our part to give up such an important part of our work would show a consciousness of strength that is great enough to function through the force of general opinion. We no longer need police powers.

Our Association will always have its own qualifications for membership. Surely they must be no more lenient than the minimum standards for colleges adopted by the American Council on Pharmaceutical Education. If we are to maintain

our leadership in education, as we must, eventually our standards will be higher in such particulars as the wisdom of this body may from time to time direct, but for the present at least we may be satisfied to have our standards coincide with theirs. In my opinion, no college which the American Council on Pharmaceutical Education deems unworthy of accreditation should be made a member of this Association. Approval by that agency should make unnecessary most or all of our work of inspection of colleges. During the past year a special committee has been studying the revision of our Constitution and By-laws so as to bring them into conformity with the Council requirements. The proposed revisions will be presented for study and discussion later at this meeting. Since changes in qualifications for membership are involved, neither certain changes which the Committee will suggest, nor the recommendation I am about to make, can be put into effect now. I hope, however, that they will be thoroughly discussed and that suitable action will be taken at the proper time. I RECOMMEND, that our By-laws be so amended as to require that after January 1, 1942, no new college shall be admitted to membership in the American Association of Colleges of Pharmacy unless it has been accredited previously by the American Council on Pharmaceutical Education.

I consider this a most important recommendation. The action we eventually take on it will markedly influence the future of this organization. This whole question deserves your most careful consideration.

In some university groups, the position of pharmacy is not an enviable one. Inherited difficulties, local conditions, campus statesmanship and other factors sometimes influence the situation. In a few cases a combination of circumstances has resulted in the subordination of pharmacy to some other division of the university. Although in certain of these cases pharmacy may not have suffered to a great extent, such a procedure is not in keeping with the dignity of pharmaceutical education. Pharmacy should be as well served as any other independent unit of the university. It should be autonomous. It must not have less than collegiate status.

Therefore, I RECOMMEND, that the Executive Committee be directed to use an increased degree of aggressiveness in endeavoring to correct the situation wherever such a merger may have already taken place and, likewise, whenever it may be learned in advance that an action of this sort is contem-

plated. If favorable action is taken on this recommendation, I FURTHER RECOMMEND that the Secretary of this Association be directed to bring such action to the attention of the American Council on Pharmaceutical Education, which has already expressed itself as opposed to such combinations.

If we rule collegiate status for pharmacy, we must realize that if on some campuses pharmacy has a low position in name and in fact, the reason may be that it deserves it. Lack of energy and aggressiveness and accomplishment on the part of the faculty and students in the school of pharmacy will not bring increased respect to the pharmacy group. Neither will it encourage a university president actively to promote pharmaceutical education. There may be exceptional cases, but, on the whole, the position of the school of pharmacy in the university is largely what the school of pharmacy makes it.

During its brief existence, the *American Journal of Pharmaceutical Education* has demonstrated how greatly such a publication was needed. It is an enterprise of which this Association may well be proud. The *Journal* has won the commendation of pharmaceutical educators, and the good opinion and respect of many outside our calling. It adds to the standing and repute of pharmaceutical education. One man alone, the Editor, is responsible for conceiving the idea, for showing the Association the desirability of the undertaking, and for the energy and skill and labor that finally made the idea a reality. We congratulate him on what he has accomplished, almost unaided. We realize the enormous amount of work, some of it almost drudgery, that is involved in the publication of the *Journal*. For this labor the Editor neither asks nor will accept compensation. There is, however, a limit to the amount of work our Association may expect or permit any one man, no matter how willing, to do. Although he will not accept personal remuneration, I believe the Editor could be prevailed upon to accept clerical assistance. By this means he would be relieved of much detail. Undoubtedly, there are many ways in which he would like to improve and develop the *Journal* and widen its field of usefulness. Its subscription lists could be developed. Additional advertisers could be sought. New work could be undertaken. Eventually, I believe, a moderate amount of clerical assistance would almost pay for itself. For these reasons, I RECOMMEND, that the Executive Committee be empowered to provide the Editor with such clerical assistance as he may need in connection with the publication

of the *Journal*, the cost of such help during the coming year to be not greater than \$360.00.

During the past decade, the district meetings of representatives of boards and colleges have developed into an important influence in pharmaceutical education. So valuable is the work being done by some of these groups that they find it desirable to preserve it by publishing the proceedings of their annual meetings. Certain districts find the financing of these publications difficult because of the small numbers of boards and colleges in their sections. For a number of years the National Association of Boards of Pharmacy has contributed \$25.00 yearly to each district which publishes its minutes and which asks for this aid. This work is fully as important to the colleges as it is to the boards. I RECOMMEND, therefore, that to each district which publishes its proceedings and which asks for a contribution, this Association shall make an allowance of \$25.00 per year to help meet publication costs. Such an allowance should not be a great tax on our treasury. There are only eight districts. One or two districts do not meet regularly. Some districts do not publish their proceedings. A few which do publish, may not need our assistance.

Since our 1937 meeting, the lives of two important pharmaceutical educators came to a close. I refer to Dean Eber H. Wisner, of the Ferris Institute College of Pharmacy, and to Dean Charles H. LaWall of the Philadelphia College of Pharmacy and Science. Our group is saddened by their passing. They had the respect and confidence and admiration of multitudes of friends and acquaintances. Their places will not be easily filled. Memorials to these men have been published in our *Journal*.

Most of the real work of an organization like ours must be done by committees. During the past year our committees have been hard at work. The Committee on Predictive and Achievement Tests has made important progress. So have the Committees on Problems and Plans, on Professional Relationships, on Curriculum and Teaching Methods, and the several other committees. The joint Pharmaceutical Syllabus Committee and the several sub-committees have been actively engaged in the work of revising the Syllabus. They have made substantial progress. Since the Chairman of each committee will report to you later, I shall not anticipate their reports in this address. We do, however, want these chairmen and committee members to know that we as an organization appreciate

the value of their contributions to this Association and to pharmacy. I predict that some of their decisions and achievements will affect the progress and development of pharmaceutical education for many years to come.

What is to be the future work of our Association? Of this much we are sure, there must be advance in pharmaceutical education and research, not retreat. All will agree on that point. We believe that the situation is now well enough in hand that progress may be made at a pace that will be moderate enough to permit each major step to be preceded by prudent and sensible investigation and analysis. Such studies should form a considerable part of the work of this Association. We may, of course, go on doing many of the things we are now doing. We shall, perhaps, find ways of doing them even better.

Should not our Association give more consideration to how closely our conception of the good of pharmacy corresponds with that prevalent among retail pharmacists, the active workers in the field? If the ideas of the two groups are not in close agreement, as they may not be, what should be done about it? The modern graduate in pharmacy has a number of different outlets for his services, but retail pharmacy still absorbs by far the greatest number of our graduates. We know that the public judges our profession by what the public sees, by the character of our graduates and their deportment and ability; consequently, we are disturbed to find that so many of our *best* graduates are not entering the retail field. Other positions are proving to be more desirable, financially and otherwise. What, if anything, can be done to make retail pharmacy more attractive? The increasing number of professional pharmacies is only a partial solution of the problem.

Always this Association will have to be on guard against any possible pressure for more, rather than for better pharmacists. Even now we see evidences of such demands. The demands will increase, for in the not distant future our colleges may expect smaller enrollments. President Raymond Walters, of the University of Cincinnati, predicts that by 1943 all colleges may experience a decline in enrollment since, today, there are nearly 1,200,000 fewer pupils registered in the six lower grades of our elementary schools than was true ten years ago. This decrease in potential registrants for our colleges will affect colleges of pharmacy, as well as other colleges, unless it should be offset by an increased demand for

pharmacists. As an Association, we should not overlook the general tendency in many states to raise the high school age, and the increasing trend toward vocational education. We shall be extremely unwise if we fail to consider the rapidly mounting vogue of the Junior College, and its possible implications for pharmaceutical education.

Everyone realizes that many who know cannot teach, although they attempt to do so. We have a Syllabus that tells us what to teach. We devise examinations that are supposed to tell us what the student has learned, and if he is being educated properly. But we have given too little thought to the question of *how* to teach, and to a consideration of all that is or should be expected of a teacher. To my mind a study of teaching is one of the most valuable works this Association could undertake.

Teaching in a school of pharmacy is not essentially different from teaching in any other school. We should keep pace with modern educational thought and practice. There is much matter in contributory fields that will help us improve the quality of our instruction. Many researches in education are applicable to our work. Our Association may conduct additional investigations like the valuable study of pharmacology made by Dr. Dille last year. We may devise new procedures, but it is important, too, that we learn to use better the means already available. Honors courses, the tutorial system, project studies, and the use of visual aids, among others, should receive our consideration.

It would be interesting to know how much time was actually devoted by each dean and each faculty last year to the specific purpose of improving teaching. Probably not as much as there should have been, for we all know that there is as much pedestrian teaching in the college of pharmacy as in the other schools on the campus. There is considerable doubt, too, that instructors give enough consideration to the broader aspects of their work.

Teachers who are products of a profession that until recently has been conditioned by years of attention to the acquiring of facts, may not find it easy to change some of their ideas and methods, but it is important that they do so. They must learn to teach men, not subjects. They must not be satisfied with the development of an aggregation of skills. Education goes beyond mere factual knowledge; it should be a stabilizing influence throughout life. Teachers should be

concerned with the attitudes and habits and appreciations of their students as well as with their techniques. They must try to develop the ability of students to think independently and to reason logically. Our graduates should have right ideals and high standards of competence. We do not want them to have distorted values. They should have a regard for truth and honesty, and courage, and loyalty, and diligence, and courtesy, and the other simple virtues that the modern world seems to think old-fashioned; for just as a century ago there was need for a higher level of literacy, today there is need of a higher level of character. We should assist in the development of the moral powers and personality and character of our students, and not feel that we are responsible for their intellectual advance alone. We must help those under our charge to become socially mature and responsive to the political and economic, as well as the professional and scientific changes of the times. This is especially important in these days of growing racial, religious and political tensions. Our graduates should have an enthusiasm for their profession, a knowledge of its problems, and an understanding of their responsibility to it, and to the public. They should be taught to consider what they can do for pharmacy as well as what pharmacy can do for them. They should be able to interpret pharmacy to the world graciously, with dignity, honestly and well.

But this Association has concerns other than education. We must continue our efforts to integrate pharmacy into public health programs. We must watch conditions and trends that may affect the practice of pharmacy, such as the continuing urbanization of our population, marked improvement in living and working conditions, new food and drug laws, general as well as special legislation, labor unions, changes in medical thought, the rise of preventive medicine, the development of cooperative medical associations, the apparent success of group hospitalization plans, and the continued demand for some form of socialized medicine. The latter is a live topic at the moment, and this evening Dean Serles, with the assistance of a number of faculty members of several colleges, will conduct a panel discussion on socialized pharmacy. Discussion from the floor will follow.

This deviation from our usual procedure was made in an effort to enrich our program and give it color and content. This discussion will afford an opportunity for all of us to in-

crease our knowledge and to clarify our opinions concerning this highly controversial subject. Although some of them may not be apparent, the panel discussion is only one of several changes we have tried to make this year. Our convention time is short, and our program is necessarily full. Perhaps it is too crowded. It is possible that you will not approve of the 1938 innovations, but whether you do or not, you will understand that a sincere attempt has been made to prevent the blind or thoughtless perpetuation of routines. Our officers for next year will undoubtedly be glad to have an expression of your thought concerning the matter at our final session tomorrow.

My experience as President has been to me an interesting and stimulating one. I realize the honor the presidency confers, and I appreciate this evidence of your confidence. I should be ungrateful, indeed, if I did not acknowledge the unfailing support and cooperation I have received from the officers of the Association, from the members of the Executive Committee, from committee members and chairmen, from Dean Serles and many other members of the Association. It was a pleasure to work with them. They all have our cordial thanks. Our Association is fortunate to have such willing workers.

The more we study the American Association of Colleges of Pharmacy and its problems, the better we realize that although it now operates with commendable smoothness and force, much work must still be done, and numerous studies still be made, if our Association is to be of the greatest service to its members, if our schools are to be the real mothers of learning we want them to be, if our campuses are to be the homes of skilled searchers for truth, if we are to help pharmacy to continue to command the respect of other professions, and to be worthy of the public support it deserves, and must receive.

Some Problems Concerned with the Relationship and Integration of General and Professional Education

THOMAS R. McCONNELL*

Department of Education, University of Minnesota

I confess I could not understand why you had invited me, unless, as your chairman has said this evening, you wanted somebody to speak to you who knew nothing at all about pharmacy. I thought I should have nothing in common whatsoever with any pharmacist in this group, but I sat by Dean Muldoon and discovered soon that we were very much alike in one particular—neither one of us can play golf.

Perhaps you would like just a word about the University Committee on Educational Research. It is an all-University committee which stimulates and gives general supervision to the systematic investigation of the University's own educational problems. The systematic studies which the committee sponsors are conducted cooperatively by members of the committee, by certain technically trained staff members and by members of the division or department concerned in the investigation.

I think it is a promising thing that the members of the University staff, by and large, are interested in getting systematic data upon educational problems and trying to solve these problems without prejudice and without preconceived notions and in the light of carefully obtained information.

It happens that our University committee, through its subcommittee on admissions, has conducted a series of studies in the prediction of success in the various colleges of the University. It happens, also, that Dean Rogers has recently asked the University committee to cooperate with him and his staff in an investigation within his college next year. It is that kind of interest in educational problems and that kind of interest in careful investigation of those issues that seems to me to promise continued growth in the educational program.

I am going to talk to you very briefly tonight about the responsibility of the university for general education.

*Dr. T. R. McConnell, Professor of Education and Chairman of the Committee on Educational Research of the University of Minnesota was guest speaker at the annual dinner of the American Association of Colleges of Pharmacy, Minneapolis, August 22, 1938.

I think that every ominous event in this jittery world of ours, whether it be the shadow of Hitler over Czechoslovakia or whether it be the ruthless bombing of innocent civilians in China, clinches the interdependence of all nations. Isolation is a good political slogan, but I am inclined to think it is a patent unreality, a fiction, or a delusion. The imminence of the next world war has made us face that fact.

However, I am inclined to thank that although a depression and a recession have tortured us, and although the signs of economic disorganization are blazing across the sky, we still have failed to sense the fact that within our own nation the welfare of one depends upon the welfare of all.

I think we might call our economy a dynamic equilibrium, a complex of intricate relations. This dynamic equilibrium is now passing through some kind of a profound change, the real nature of which is still somewhat obscure. The equilibrium is certainly deeply disturbed. For the time being certain parts are more severely affected than others, but changes in one part of a dynamic system inevitably affect all other parts of that system at some time. There are no insulations. There are no impregnable barriers which we can throw up to ward off the tensions created by the disturbances in one or more phases of the system.

Although we cannot envision very clearly now what the ultimate readjustments in this system may be, it seems to me that certain characteristics of the evolving state of affairs are reasonably clear.

First, I think most of us would agree now that no one can be really secure while millions face disaster every tomorrow. The security of the few can come only through the security of the many.

Second, while millions want there can be no prosperity in the true sense of the word. Temporary expedients may stay disaster for a certain length of time, but ultimately we will all suffer a common lot.

Third, no one person, no one class, no one profession, no one group of any kind can attend only to its own interests, to its own processes, to its own objectives. We have an interdependent economy, we have an interdependent social life, and we have an interdependent culture, the paramount concern of which is the broadest human welfare.

Finally, a democratic way of life demands that all of us

be willing intelligently to participate in the solution of problems that are pressing on every hand.

If these quick generalizations have any validity at all, what do they mean for education? What do they mean for professional education, in which you are interested? I think most of us would believe, who look upon the current educational scene and the current social situation, that there is an increasing recognition on the part of the professions of their broad social accountability. There are a good many evidences of this, of which you are aware.

The medical profession is only now going through the throes of trying to decide how it may best serve human welfare and, at the same time, maintain standards of professional training and growth which are severe and rigorous.

Very interesting things have been happening in the colleges of law. Certain of the most progressive ones are slowly revising their curriculum to explore more fully the relationships between the law and social, economic and political problems, and to present the law as a means of social progress. I think too frequently it has been true that we have taught lawyers to operate by rule of thumb. We have encouraged them, because of the emphasis upon precedent, to believe that the primary purpose of the law was to maintain the status-quo. However, there has been an attempt on the part of certain law schools in this country, in which I think the University of Minnesota has given unusual leadership, to look upon the law as a growing, evolutionary process of social control.

Thus, the professions are recognizing broad social relationships, and we are increasingly aware that professional men must participate more than ever before, in the solution of social problems and increasingly to exercise leadership in broad human relationships.

I had occasion recently to visit two competent dentists. I was very much interested, as I sat in the chair being worked on by these professional men, to hear their comments, which they themselves initiated, on their educational experience. Both of them declared that, as far as the technical professional demands of their training were concerned, they had been well cared for, but both of them were just a little bitter because their higher education had neglected general and liberal training.

It seems to me that these things I have mentioned,—the greater accountability of the professions to the general social

welfare, the increasing responsibility of professional men and educated men generally to participate in the solution of social, political and economic problems and the general dissatisfaction among many professional men with the lack of broad training,—make it fair to say that every professional and technical school, in cooperation with the university, has a responsibility to see that its students have the opportunity to secure a good general education. But, unfortunately, there are not at the moment many universities where this kind of education can be secured, strange as it may seem.

In most instances, the professional schools will look to the colleges of arts and sciences for this general education. I think it may pay us to consider how the colleges of arts and sciences are conventionally organized. As you all know, they have generally divided the four-year period into two sections. The first two years are said to be devoted to a general education, and the last two years to specialization. Faculties have generally assumed that this broad education during the first two years should be obtained through "distribution"; that is to say, by sampling the various subject-matter fields or subject-matter departments of the liberal arts curricula. And the special education of the last two years has been obtained conventionally through concentration in one of the subject-matter departments. But I think a reasonable scrutiny of plans for general education, by way of distribution, would indicate pretty serious deficiencies in that program.

In the first place, the introductory courses to which we have assigned students for general education are, for the most part, in fact, developed to prepare and often to persuade students to major in corresponding departments in the senior college. Ostensibly these courses have been offered for the purpose of general education, but actually they are highly preparatory in character. Now and then, of course, certain instructors have tried to differentiate between the needs of students taking an introductory course for the purpose of liberal training, and those taking it to prepare for major work in the department, but, by and large, college teachers have assumed that what is good for preparatory training is also satisfactory for general education.

In the next place, you will notice that a student had to get a general education by pulling together fragments of broad fields of knowledge; that is to say, he took a course in chemistry perhaps, but had little to do with all the other fields of

physical science, or he took a course in botany but had little contact with the broad field of biological science, or he took a course in principles of sociology but omitted the other social studies.

I think it is fair to say that the preparatory courses in the lower division of our colleges and universities deal too greatly with deferred values, that is to say, values which are contingent upon further formal training. I think one is also justified in saying that what one gets by pulling together some of these fragments of fields of knowledge and calling the collection a general education has little unity or little comprehensiveness.

The other day I was in the office of the new head of the physics department of the University of Minnesota, and he called my attention to the difficulty which technical students have in securing a general education. He spoke particularly of the social sciences. If the student really wanted to understand the forces of the modern, social world through our present lower division curriculum, in most instances what would he have to do? He would have to take a course in sociology, a course in economics, a course in political science, a course in geography, and perhaps some courses in history. This becomes practically impossible for most students in a highly technical curriculum with its own severe demands.

What are we going to do in face of that sort of situation? You know what we have done in many instances. We have pulled these fragments together to constitute what have been called survey or orientation or overview courses. There is some doubt, however, that survey courses have solved the problem of general education. I think it is clear that it is better perhaps, for purposes of general education, to deal with a field of knowledge than a narrow segment or department of knowledge. But I would like to call your attention to the fact that while these courses have spread the student over a broader area, for the most part they have been taught for the purpose of giving him a view of the academic outlines, the academic skeletons, the conventional chronology of these disciplines. Although the student may deal with the broad field instead of a narrow segment, the interests of scholars and the nature of academic research in the related disciplines included are the primary considerations in the selection and organization of subject matter in survey, orientation, or overview courses. And frequently, I suspect, these comprehensive courses are

in fact almost as preparatory, although a little more broadly so, as the old introductory courses in separate departments.

But there is another point of view with respect to general education that deserves consideration. This point of view says that general education should be concerned with the adjustments which human beings have to make in the course of intelligent, wholesome and satisfying living. This approach suggests that, instead of using as the basis for selection and organization of subject matter the conventional outlines of an academic discipline, one should use adjustment situations as the centers for selection and organization of content. There is a substantial difference in these two procedures in curriculum construction.

The subject-matter survey is quite likely to deal in an encyclopedic fashion with the facts and principles of a subject or of related disciplines. Many of these courses, in fact, are composed of outlines of the conventional introductory courses. In the social studies for example, there may be one section on sociology, and on economics and one on political science; the reorganization may overview the several subjects of the field but attain very little unity or relatedness.

But the other point of view with respect to general education, which, for want of a better word, I shall call the functional approach, begins with problems and adjustment situations and goes to whatever subject-matter fields may provide facts and principles necessary for the exploration or the solution of those problems. The subject-matter survey course begins with the formal materials of the field, and hopes to conclude with the application of the content to a few problems in some definite life situations. The functional course starts with those problems and life situations and commands its material from any fields which may be of assistance.

I want to give you two or three specific illustrations of so-called functional courses for general education, because I think it is only fair to be concrete.

Let us go back to the social studies again. I think everybody would agree, if what I said in the first part of this discussion is true, that among the fundamental adjustments which human beings must make is a more intelligent approach to the crucial problems of contemporary affairs. Every one of these problems involves in varying proportions all of the social studies, sociology, economics, political science, and also psychology, biology, ethics, and technology, as well. There

seems, in other words, excellent reason to make these contemporary problems the basis of selection and organization of the course instead of dividing it conventionally into a section on political science, one on sociology, and one on economics.

I am going to read to you very briefly from the introduction to a syllabus for the study of contemporary public affairs:

"This course is designed to acquaint the student with the outstanding problems facing American society today, viewing them in their sociological, historical, economic, and political relationships. The students will, in each case, note the way in which the problem emerges at the moment, search for the immediate and underlying causes"—history comes into the picture, you see—"and examine the various proposals for solution."

Here are some of the problems that constitute the organization of that course. These are not exercises at the end of the chapter. They are the points of departure: "The problem of changing population patterns, their significance for future sociological, economic and political readjustments. The problem of achieving the most effective utilization of available natural resources. The problem of shifting occupational patterns, their adjustment to changing conditions in a dynamic society. The problem of effecting a socially more desirable distribution of wealth and income. The problem of the stabilization of business cycles within a narrower range of variation. The problem of determining the proper allocation of economic effort as between free, private enterprise and governmental control. The problem of enabling the individual to achieve a fuller, all-round development through the social environment. The problem of assuring social justice to minority groups in the population. The problem of how the government may more adequately meet modern social needs. The problem of how the United States should relate itself to the other countries of the world.

There is another series of adjustments which the human individual has to make which are treated in the science of psychology. I don't know how many of you remember the courses in psychology you had as an undergraduate, but the general course was primarily developed to prepare students to take the advanced courses in the department. It began with a great deal of information about the nervous system, the sense organs, and certain other phases of the biological

mechanism which, after all, was not particularly crucial in aiding adolescents or adults to make satisfactory adjustments in life situations.

It happened that I had been giving advice on curricula for general education to other departments before applying it in my own. That is customary for professors of education. Finally, I said to a young man in the department of psychology, "It is time we practiced what we are preaching. Why don't you change the introductory course in psychology so that it becomes definitely and chiefly valuable for general education; why not select from the whole area of psychology those phases which treat constructively and functionally the psychology of personality and social adjustment?"

This is the kind of organization that came out of the instructor's efforts: "How to secure efficiency in one's work. Motivations—What they are, and what they do. The main types of learning that underlie personality development. Motivational frustration, and the different kinds of reactions to them. How to deal with others in ordinary social contacts. How to handle mild personality defects of one's own. How to develop personality in positive directions. Sex motivation, and sex adjustments. Personality development in childhood and adolescence. The relation between the psychology of personality and studies of the broad social environment. The interpretation and treatment of the more serious maladjustments of personality."

I shall not take time to give additional illustrations of the functional approach to general education. I think you can see at once that there are broad areas of human adjustment which we might attack directly, which we should identify as they arise in our world and in our day, instead of spending so much time on the problems that arose in another world and among the people of another time. That is not to say that we should not teach history. It is not to say that an understanding of the problems which confronted and confounded the Greeks and the Romans, and an understanding of what they did about them, would not help us in understanding our own. It is to propose, however, that we should deal directly and primarily with the problems of adjustment which we face today, and use the culture, the history of the race to focus upon those problems.

The reason I said the universities are not set up to give the students a general education is that in most of the col-

leges of arts and sciences a functional program for general education still does not exist. There are interesting illustrations of attempts to develop new plans: The University of Florida, where all students, no matter what professional or special schools they may ultimately transfer to, have to register in a general college and take during the first two years broad courses dealing with problems of human adjustment, with reasonable room left for preparatory courses in the special fields in which they are interested. The University of Chicago has a widely known plan of general education. The general college in the University of Minnesota, which, however, is just a small part of the undergraduate program in general and liberal education in the University, is another instance.

It seems to me that the professional schools, faced with the problem of educating their students more fully to participate intelligently and to take places of leadership in the modern age, would do well to call upon colleges of arts and sciences to provide an offering in general education. I think, as a matter of fact, you would do colleges of arts and sciences a service if you would raise with them the question of the extent to which they are serving students of medicine, dentistry, pharmacy, law, business administration, education, and in fact, their own students in liberal arts, in the area of general education for living in the modern world.

I believe, if we begin to discuss those problems realistically, colleges of arts and sciences will provide and will enjoy providing a new type of cultural education to meet needs which are common to all, but which for the most part I am afraid we are not adequately caring for today.

Public Support for Professional Education*

HARRY C. BYRD
President, University of Maryland

Several days ago when I began to look around for source material for this paper, it was with considerable amazement that I learned that practically nothing has been written on

*Read at a joint session of the American Association of Colleges of Pharmacy, the National Association Board of Pharmacy, and the American Pharmaceutical Association, Minneapolis meeting, 1938.

the subject. The American Council on Education and the U. S. Office of Education informed me that they had nothing helpful.

So, we are delving into an apparently virgin field, and the opinions herein expressed are my own personal opinions, organized out of the experience that has been mine in seeking public support for the improvement of professional education in the University of Maryland. These opinions, for whatever they are worth, are expressed in the hope, primarily, that they may provide the beginning of a foundation on which the pharmacy schools particularly may build in their effort to acquire the larger support necessary for higher standards of operation.

If we define what we mean by the term public support, we should, perhaps, consider that it is a type of support that comes from two sources; one from public taxes, the other from endowments. But today we shall speak in large measure of that type that might ordinarily be termed tax support, largely because, so far as the East is concerned, at least, there has hitherto been very little effort to mold public sentiment into a professional school consciousness. And, consequently, public tax support of professional schools, at least some of them, has been largely noticeable by its inadequacy or by its absence.

Endowment support, while undoubtedly a kind of public support, comes most often from a development of personal interest on the part of an individual, and the processes by which a University commands this type of support are entirely different from the processes by which it obtains money from a state or municipality. Of course, the same fundamental values that enlist public interest also help enlist the private and personal interest which provides endowments; but the processes by which the professional schools must sell their wares to private interests are essentially different from those used to create public sentiment and translate that sentiment into cash income from taxes.

In this day when the costs of education are mounting, when more and more students are seeking opportunities to enter the professions, when demands for research funds are reaching hitherto unheard of proportions, the need of public support for professional education, either from endowments or tax money, has become crucial, and undoubtedly constitutes the outstanding problem of professional schools almost everywhere.

Ample laboratories and class rooms, good equipment for both, capable teachers, and teachers with the vision and aggressiveness to seek and find new knowledge, are costly but they are the only mediums through which we can achieve higher educational standards and better values. And in the greater values we wish to give in improving public service lies the reason for more adequate public support.

But, how can we get adequate public support? In other words, how can we adequately finance the increasing demands for higher educational standards? The answer to these questions is vital not only to those responsible for the administration of professional schools, but to the professional associations and State Boards which have very definite responsibilities for these schools.

It is a foregone conclusion that students generally no longer can pay the total costs of their education, and in no case where students are expected to do this can high standards be maintained. Consequently, if we are to have high standards of professional education, the public must be responsible for the difference between what the student can afford to pay and what the education actually costs.

The problem that confronts you and me, therefore, responsible as we are for the conduct of professional schools, is to find a way to make the public understand that it has this responsibility and lead it to accept this responsibility.

No man wants to pay for something that he does not get, and, in a larger sense, the public which is nothing more nor less than a collection of individuals, is not going to put up hard cash in the form of taxes for something about which it knows nothing and for a service which it does not realize that it is getting. And not only is this true with tax money, but you may be sure that large gifts are not coming from wealthy contributors unless such contributors have knowledge of a very definite and specialized service that is being rendered to them, or to something in which they are particularly interested; or unless, as philanthropists, they recognize a valuable service that is being rendered to the people as a whole.

In either case, or in any case, before the professional schools can expect adequate public support, they must sell generally the idea that they are rendering such valuable services that they have a place in the community, state and national life that makes them a necessary part of this life.

It is amazing that there is such lack of understanding,

even among the parents of young men and women who are attending professional schools, of what the professional schools are trying to do for their students and for the communities they serve. The greatest handicap under which the professional schools have labored, and are laboring, is the fact that the public, neither directly nor indirectly, has even a reasonable understanding of their character and purposes.

Beginning with and accepting these premises, does not the solution to our problem seem more clear? Does it not seem that we shall find the solution in the simple process of acquainting the public with what we are doing and why?

Let us consider for a moment what the objectives of the professional schools are. The average parent, and the public as well, looks upon them as places where boys and girls may go to acquire certain qualifications to enable these boys and girls to earn a living. The general thought of parents about the professional schools, and the general conception of them on the part of the public, goes very little further and takes very little more into consideration.

Therefore, it is only natural that in the public mind rises the question, "Why should we be taxed to enable this boy, or that girl, to obtain the qualifications that he or she must have to earn a living in the profession which he or she seeks to enter?" A plausible question, and an unthinking, ready answer would seem to be that the public should not be taxed for such a purpose. But let us examine for just a moment this idea and see whether or not we can justify asking the public to evince in the professional schools a larger interest.

Consider the law schools, as an example. Are their functions such as to command sufficient public interest that the public will agree to support them through taxes? What is there of value in these schools to the public generally that should stimulate large private gifts?

When we consider that the graduates of the law schools are responsible for writing practically all the laws on our statute books, and are responsible in no small measure, as members of legislative bodies, for the enactment of these laws; and, then, in every case that comes before the courts that have to do with the enforcement of these laws must plead either for the defense or for the plaintiff; and, even further, that the graduates of these law schools serve without exception as judges who interpret the laws of the nation, the laws of the state, the laws that concern only local communities,

laws which affect the lives of every individual and which influence almost our every act, should not the public be vitally concerned with the kind of education that the men in the law schools receive? Should not the public be concerned with the teachers who provide class room instruction, who are responsible for the development of character among the students, these students who, as judges and as members of legislative bodies and as law enforcement officers, will be responsible for enactment of laws, and for the interpretation and enforcement of law?

That we shall refrain from the enactment of laws that might affect adversely large groups of people, or that cannot be enforced, and that we have wise interpretation of law, have become vitally important to every citizen. Therefore, is it not essential that the public realize the responsibility it has for the safeguarding of legal education so that the legal training for our youth shall be of a type that will develop men with the knowledge, with the character, with the cultural background, that should enable them to serve well the best interests of all the people? It would be hopeless to expect a law school depending only on the fees of its students, thus being forced to welcome undesirable students and incapable students, to meet the demand for such a high type of service.

In the field of law enforcement alone, the right kind of education in law school will be productive of such returns to our people as will far overbalance such additional costs as would be necessary to provide the best possible training for our lawyers.

Now let us step a little further and consider the field of dentistry. Do we look upon the dental schools as a place where a man may go to acquire sufficient mechanical technique to fill or extract teeth as a professional medium for personal financial gain; or have we sold the public the idea that the dental school is an instrument of service so essential to the general health that those who leave its portals must be sufficiently well equipped, not only in mechanical skill and in medical knowledge to pursue well their profession, but in full knowledge of their responsibilities to the public in carrying on one of the great professions charged with maintaining high standards of health?

We all know what difficulties may arise from diseased teeth. We all know the dangers to glands in different parts of the body from teeth infections, and when the public gen-

erally come to understand that their physical welfare is in no small measure dependent on how well the graduates of the dental schools do their jobs, there will be no hesitancy about giving whatever support may be necessary to place dental education on just as high a plane as medical.

Consider our medical schools and see if they are simply places where a boy or girl learns to be a physician, so that that boy or girl may earn a living in the medical profession. This may seem to be true, but far from it! When we consider that the physical welfare of all our people is dependent upon how thoroughly has been the teaching and clinical experience that the medical practitioner has acquired in his four years in medical college, do our people not have a vital interest in how well the medical colleges perform their duties? Should not our people be perfectly willing to pay whatever is necessary to make certain that the work of every medical school is of such a high character as to insure that the needs of our physical being are satisfactorily met?

When your wife, speaking to each of you as an individual, lies in the "valley of the shadow" in order to give birth to new life, does it matter to you what has been the cost of the education of the attendant physician? I do not have to hear your answer, because the only factor that enters into your consideration at such a time is whether or not that doctor has the medical knowledge and technical skill to do his job with sufficient thoroughness that the mother shall be restored to health and strength and that the child shall come into the world physically and mentally fit to grow into a useful citizen. Under such conditions are you not willing, would any man be unwilling, to pay \$5.00 a year in taxes, or \$10.00 a year in taxes, or meet whatever financial responsibility the cost of medical education might entail upon you as an individual, if that expenditure would make certain the medical knowledge and technical skill upon which the lives of your loved one, and the one yet unborn, depend?

Now, let us consider Pharmacy. Is it true that a boy enters a school of pharmacy to go through a perfunctory kind of training to enable him to read the price tag on a cake of soap, or to sell some one a bottle of castor oil, or to tell some young lady about the kind of comb that would appear best in her bobbed hair? Some critics hold that the drug store is thus over-commercialized, and deduce from that, that it is silly to waste public funds in giving thorough training to

those who are to enter into this kind of business or profession.

Under some conceptions of the objectives of the schools of Pharmacy, it would indeed be difficult to convince State Legislatures that it is justifiable to appropriate tax monies to pay the costs, over and above what the student can pay, of maintaining high standards in pharmaceutical education.

This, however, is not the true picture, and it is our responsibility to paint another picture for the public mind; a picture which will prove to the public that they will get adequate returns for every dollar of tax money that they are called upon to expend; and that such expenditure is good public policy. We want the highest type men to enter the pharmaceutical profession and we want for them the best possible education. Let us make the public understand that Pharmacy today is just as worth while as a public health profession as is Dentistry or Medicine, and that in its functions it is vital to our every-day needs, vital to the welfare of all.

In the preparation and compounding of drugs and medicines, in the distribution of poisons and narcotics, in the management of law enforcement agencies that control the quality and purity of drugs and in the research by which we attempt to develop new drugs and new medical preparations, the materials that the pharmacists handle are so dangerous and the services they render are so important that the need for the highest type of training for the men and women we depend upon to do this should be made sufficiently apparent that no one could escape its significance.

A variation in a prescription beyond the tolerance allowable, in say, Digitalis, on the part of an ill-equipped pharmacist may mean the difference between death and life to the patient. No medical doctor is worth more to the patient than the values measured in the ability of the pharmacist to compound faithfully and accurately the prescriptions the doctor provides.

The problem of the pharmacy school in obtaining public support, even though it has seemed to be much more difficult, is not different from that of the other professional schools. It is simply a process of selling to the public the potential values of services pharmacy schools render. As soon as the public understands the great need for adequately trained men in this field, the great need for higher standards of education, and for the highest standards of character and culture, and as soon as the public translates that understanding into serv-

ice values for itself, you need have no worry about adequate public support.

But you who are interested so directly in schools of Pharmacy must realize that, in order to imbue the public mind with the thought that the pharmacy schools are instruments of real service, it is necessary for you to convince the public that it is a public duty, in the interest of all, to see that these services are of the highest possible standard. We must put our houses, figuratively speaking, in such order that we shall have an excellent product to sell. As long as we are willing to take into the schools of Pharmacy even a small number of sub-standard students, students who are not fitted by such a background of culture and character as to warrant a belief that they can well be entrusted with the responsibility that goes with the kind of services that pharmacists render, just so long will we delay getting the public recognition that is your just due.

To put it another way, with blunt frankness, it is my opinion that the medical schools have found it easier to get public support; to become the recipients of great private benefactions, simply because, years ago, they cleaned their own house and since then have had better selling points with which to approach the public.

In other words, the general lack of adequate public support of schools of Pharmacy has been due in large measure to the fact that the schools of Pharmacy themselves have not been in such a position that they could offer thoroughly convincing arguments that they are worthy of such support.

I do not know, except for hearsay, what the situation is in most of the pharmacy schools of the nation. But I do know what the problem in our own pharmacy school was two years ago and how we met it. I know that we were supposed to have a good pharmacy school and that our standards measured well up to pharmacy school standards generally. Yet we were taking in sub-standard students and maintaining in school sub-standard students with grades that were entirely too low to warrant a belief that they would be successful in any profession. But we were compelled to do this because we were getting practically no public tax support and we needed the fees from these students to enable us to operate.

We met our problem by going to the State Legislature and saying frankly that we were not maintaining as high standards as we felt we should maintain; that we were accepting

and turning out men whose standard of work was not such that we felt they would render to the people of the state the quality of services that should be rendered. We told the Legislature that we were compelled to operate on this basis because the people of the State of Maryland had never recognized their responsibility to this branch of education; had never understood the services it is rendering to the people generally and to the pharmaceutical industry specifically. We told the Legislature exactly what it would cost to enable us to raise our entrance standards and to eliminate the unfit. In other words, we gave to the people of the state the reasons why they should expect a high type of service from our Pharmacy School and from its graduates, and we told them, further, the difference in actual cost to the public over and above what the students were paying, to enable us to achieve, in the public interest, the objectives that we were setting forth.

The Legislature grasped our problem; the people throughout the state began to awaken to the real responsibilities of the men who were serving them in this field, and they met their part of the problem by agreeing, by state appropriation, to pay the difference in cost of the higher type of service, and today the University of Maryland Pharmacy School is surpassed by few, if any, other pharmacy schools in the percentage of its income that comes from state taxes. And this is simply and solely because we led the people of Maryland to an understanding of what the Pharmacy School means to them and the necessity for having high-type, well-educated men to render the services for which the school is responsible.

But this is not all. The Schools of Pharmacy must begin to take stock of themselves; must begin more definitely to outline their objectives and to state frankly to the people how they propose to achieve these objectives. I do not know what the future of education in the field of pharmacy may develop. Personally, I am strongly inclined to suspect that it may take two trends; possibly three. I believe that pharmaceutical education of the future will go far beyond the mere training of pharmacists. There will always be a constant demand to supply the needs of the drug stores, and it may be that eventually two years of intensive practical training will be deemed sufficient for this type of objective. But in the objectives that have to do with research; that have to do with controlling the quality and distribution of drugs and medicines; in the operation of agencies for the enforcement of legislation, not only

will we give four years of work, but most certainly will go far beyond that. And soon, I suspect, it will be incumbent on us to teach some of the specialties that have to do with law enforcement.

Even further, I believe that in the field of Pharmacy there are wonderful possibilities for extension, organized somewhat along the lines of the extension services of our Agricultural Colleges. Think what it would mean in the way of increased business to the manufacturing interests and to the health of people generally, if the pharmacy schools could, through adequate extension staffs, give to the people generally knowledge of the danger and values in the use of drugs. This might be stepping on the toes of the medical practitioner, perhaps, but, stepping on toes or not, something of the kind is coming just as surely as today the casual customer walks into a drug store and asks the clerk to give him some kind of a proprietary medicine that will be good for a cold. It may be that the day is not far distant when the drug store will become the public health center for its neighborhood. Certainly there is no better medium for the distribution of public health information.

Another field in which the pharmacy schools, through an extension force, might render tremendously valuable services to the drug interests would be in constantly trying to educate the drug interests in the thought that the best interests of all concerned lie within the law. We are going to find ourselves compelled to do more and more of this in order to meet the constantly increasing regulation by Government agencies.

The State Boards are particularly concerned with this question of government regulation and law enforcement; and especially with educational standards, knowing full well that the product of the pharmacy schools is the product with which they have to deal. No wonder, the State Boards with this realization, have taken a leading part in the effort to get the Pharmacy Schools to raise their standards. But with all due respect to the State Boards, the Schools, as the fundamental basis of the whole pharmaceutical profession and business, should not have to be shown the way by the State Boards, but rather should themselves take the leadership and then zealously guard that leadership. A proper selection of entering students and the right kind of teaching will do more to settle the problems of law enforcement than all the regulations the states and the United States Government could pass in a hundred years.

And those of you that are especially interested in the manufacturing side of Pharmacy should look to, and demand from, the schools a high type of work in the field of research, because on the advancement of knowledge through research depends the success of your industry.

The Pharmacy School, to reach its highest state of development, to achieve the objectives under which it will render the highest type of service, must adopt for itself, as a public health instrument, the same type of yardstick in the measurement of those who enter these schools and later enter the pharmaceutical profession, that the medical schools have adopted. They must understand that Pharmacy is a type of education that cannot be fitted to the individual. It is not an arts and science college in which something can always be found that the student should be able to do, but rather it is a college which selects its students to fit the education it offers; which selects students who, by reason of educational preparation, by character and by cultural background, seem to be fitted to go into what in the future is going to be one of the most exacting of the public health professions.

"An ideal standard," you say. "Undoubtedly," I reply, "but a standard that once reached will guarantee the necessary public support."

The Pharmacy Schools cannot and should not expect adequate public tax support if they continue to warrant the printing about them of statements such as one I recently read in the April issue of a journal published by the American Council on Education, in which it is stated that "although the American Association of Colleges of Pharmacy has maintained standards of accrediting for about ten years, these standards have not been rigidly enforced and no school has lost its accreditation for failure to meet them." I doubt if this statement is entirely true, but I quote it to bring to your attention the need for higher standards. No educational agency would dream of printing such a general statement about the Medical Schools.

Gentlemen, the schools of pharmacy must believe in themselves, and keep faith with themselves, and with the public, if they expect to get the kind of public support that that branch of professional health education deserves and for which I believe the public is willing to pay.

Let us, with a new spirit, determine in Pharmacy to serve adequately and well future generations. Let us lead future

generations to understand the necessary values in this service. Let us establish our objectives and decide on a way of reaching those objectives, so that our achievements of the future years will enable us to voice, with conscientious satisfaction, that vision from Revelations, "I saw a new heaven and a new earth, for the first heaven and the first earth were passed away."

Address of the President of the National Association of Boards of Pharmacy*

ROBERT L. SWAIN
Secretary, Maryland Board of Pharmacy

Some years ago, when it was my privilege to deliver the presidential address to the American Pharmaceutical Association, I stated that I would seek to make it reflect the presidential interpretation of the presidency, and to have it present my own conclusions on some of the problems which had received my attention during my term of office. It seems to me that this is what a president should do. Different presidents react differently to the problems of the times, and by giving the Association the benefit of their independent thinking, they contribute greatly to the solution of the problems on the one hand, and broaden the outlook of the organization on the other. For this reason, I shall discuss with you some of the matters to which I have given a great deal of thought during the past few months. It will be apparent, from what I have to say in this address, that I have not conformed to the pattern of my predecessors, and that I am bringing to the attention of the Association something new in the discussion of state board examinations, and giving a new emphasis to the importance of the real function of boards of pharmacy.

At the outset of this discussion, let me say that I have no desire at all to be dogmatic in the views which I shall present. I wish to emphasize, too, that I myself hold no dogmatic opinion with respect to them, but I have thought it advisable to discuss them in this address so that these thoughts may be before the Association for its consideration.

I feel that we should view our problems not exclusively in

*Read before the National Association of Boards of Pharmacy, Minneapolis, August 22, 1938.

the light of past experience, but that we should give some consideration, and perhaps a great deal, to the new things about us and to the changes which have come about on all sides. A rule of law, or of conduct, or of procedure should no longer be blindly followed when the reasons for the rule no longer exist; or, as the lawyer sometimes puts it: We are much more concerned with the substance of the thing than with the form in which it is expressed. The form should, therefore, give way to substance, and the substance of a thing must, of necessity, be determined by a full and frank consideration of the subject matter from which it is made.

I am rather persuaded to believe that the conditions now confronting the practice of pharmacy, as they are exemplified by the training which a pharmacist must have in the sciences upon which public health depends, are sufficiently different from the conditions under which boards of pharmacy were first set up as to make necessary a sharp change in the function of the boards of pharmacy themselves.

I have thought for sometime that we gave too much attention to our written examinations, gave them undue emphasis, and wasted too much time on them. I have thought, too, that we should greatly expand our practical examinations, so as to have them encompass as much of the field of applied pharmacy as possible. The times have moved on at a rapid rate, but we have stood relatively still, have clung to the original philosophy of state board examinations, and have rather rigidly adhered to the first pattern. I am somewhat impressed with the fact that we should diligently inquire whether the great progress made in pharmaceutical education hasn't thrown our old pattern out of line, and made it necessary to resurvey our position so that boards of pharmacy may fit in logically with the new educational program.

In other words, is there anything to be gained by boards of pharmacy continuing to conduct written examinations in pharmacy, chemistry, and materia medica, when the applicants now coming before the state boards of pharmacy have successfully completed four years of standard collegiate work in pharmacy in an educational institution subject to strict supervision and regulation, and the excellence of whose curriculum is universally accepted? Would it not be more in keeping with the peculiar talents of the boards of pharmacy and of more value to society at large, if our state board examinations were of a more practical character and aimed at

actually determining the actual fitness of applicants to engage in the practice of pharmacy?

Let us proceed to analyze the situation and to see what arguments there are in support of the view which I present. Now, the statements which follow are not to be looked upon as fixed conclusions on my part, nor indeed are they to be looked upon as definitely expressing the opinion which I hold. Let us proceed with the discussion in an open-minded manner, and then see just where logic leads us; and if logic leads us to a conclusion somewhat different from that which we have heretofore held, let us be candid enough to recognize the fact and to give full consideration to it as we seek to properly discharge our function as members of the examining boards.

Pharmaceutical legislation, in its modern sense, first began to take shape in this country about 1870, although there had been many pharmacy acts applying to individual counties of a few states, notably New York and Pennsylvania, and to some of the larger municipalities prior to that time. When the state laws were passed, they made slight effort to conform to the requirements of these local laws. For instance, each of the early state acts, so far as I have been able to ascertain, set up boards of pharmacy, and charged them with the responsibility of passing upon the competency of those seeking to engage upon the practice of pharmacy.

It must be borne in mind that when pharmacy laws were first passed they prescribed no educational qualifications, and required no more than that the applicant for examination before the boards should have had a certain number of years of practical retail pharmacy experience. There were no educational requirements, and thus the great majority of those who came up for examination had not had the benefit of organized, systematized instruction. The question of competency was to be determined entirely from what the applicant had learned during his four years of practical experience. It was but logical that membership on boards of pharmacy should itself be predicated upon practical experience. In most instances, a specified number of years of practical experience was required, and one of the qualifications was that the members should be actually engaged in the retail drug business. In fact, that condition still maintains. In the New Jersey Pharmacy Act, for instance, it is specifically provided that each appointee to the board of pharmacy "must have been registered as a pharmacist in New Jersey for at least five years

prior to his appointment, and he must have been actually engaged in the practice of pharmacy at the time of his appointment, and continue in the practice of pharmacy during his term of office".

In Maryland, persons appointed to the board of pharmacy shall "have had ten years' active pharmaceutical experience and be actively engaged in the retail drug business". The Connecticut law is equally explicit. Members of the board in that state "shall be a licensed or registered pharmacist of at least ten years' practical experience in the practice of pharmacy and, at the time of his appointment, shall be actively engaged in the practice of pharmacy in this state". It was believed then, and the belief properly persists, that those who had actual retail drug store experience are the best qualified to decide what is demanded of those seeking to enter into retail pharmacy. The whole system of registration in those days was based on the knowledge obtained through practical experience on the part of those seeking registration, and the examinations themselves were seen in the light of practical experience on the part of those conducting examinations. It will bear repetition that there were no educational qualifications demanded of those coming into pharmacy, and none demanded of those holding membership on the boards of pharmacy. This fact leads to some interesting observations.

First of all, it must be admitted that the applicants who came to the boards in those earlier days came with no presumption of competency in their favor. They came to the board with nothing other than a sworn statement to the effect that they had worked in a drug store for a number of years. High school training was not required, and college of pharmacy graduation did not become a prerequisite for many, many years. There was, as I remarked above, no supervised study, no organized work, no systematized curriculum. Whether the applicant was competent according to the standards of that day was dependent entirely on his initiative, his own perseverance, and his own liking for study. The only evidence in his behalf, and the only suggestion of his self-education and qualifications, was what he himself showed in his state board examinations, and these examinations, as we all know, were extremely elementary and in keeping with the educational standards of that day.

Today, however, the situation has vastly changed, and practical experience, which was the sole basis of competency

then, has become of negligible importance now. Almost without exception, the state pharmacy acts require high school training and graduation from a college of pharmacy of recognized standing. To note the vast contrast, let it be said that college of pharmacy graduation is based on four years of standard university work, including cultural and general educational subjects, approved work in the sciences, and a wide range of electives.

A close study of the curriculum as laid down in the fourth edition of the Pharmaceutical Syllabus seems to me to justify the statement that the picture has almost entirely changed, and that today applicants coming before state boards of pharmacy for examination come with all of the presumptions of education in their favor. Every one of them has completed four years of standard educational work in approved educational institutions. Every one of them has had four years of supervised study, and every one of them has been the subject of four years of careful scrutiny and observation on the part of the faculty. It seems to me that these facts alone are sufficient to sharply change the attitude of pharmacy and to indicate the necessity for changing the procedure of the boards.

I have been thinking much about this subject, and have about convinced myself that we attribute undue importance to certain of our state board examinations. I have become extremely skeptical of the efficacy of state board examinations in chemistry, for instance, to test a student's knowledge of chemistry, or in any sense to measure his four years' work in this subject.

This skepticism is strengthened by the fact that an applicant will fail one examination of ten or twenty questions, and a few weeks later will pass an examination consisting of ten or twenty different questions. Then, too, we know that examiners differ in their interpretation of answers, so that a failure under one examiner might have been a pass under another. I have known candidates to fail the Maryland examinations, and the next week pass examinations in the District of Columbia, or other nearby states. Which is entitled to greater weight, the record of the student's four years' work in a recognized college, or his record in a single state board examination? The college standing is based upon a series of connected factors. The board examination requires the applicant to base all upon one throw of the dice or one flip of the coin. In college, the student takes many courses, in many de-

partments, and under many instructors. He has lecture room work, review courses, laboratory work, recitations, frequent written tests, periodic examinations, and his collegiate standing and graduation are based not upon any one of these alone, but upon a combination of them all.

It should be borne in mind throughout this entire discussion that every college of pharmacy, whose applicants now come before the boards for examination, has the approval of the boards themselves. The Pharmaceutical Syllabus, which is the measuring stick of the pharmaceutical curriculum, is developed by a special committee on which the National Association of Boards of Pharmacy has equal representation. The American Council on Pharmaceutical Education, which is the accrediting agency in pharmaceutical education, is largely the result of the work of the National Association of Boards of Pharmacy, and on this body the National Association of Boards of Pharmacy has equal representation. Thus, through our lawfully delegated national association, the boards of pharmacy of this country participate in a very important and far reaching degree in the curriculum of the schools, and there is much to indicate that this participation will become more important in the future.

Frankly, has the time not come when the boards should recognize the conditions which have come about, and modify or change their policy and procedure accordingly? Hasn't the time come when boards of pharmacy might safely and wisely accept graduation from a recognized college of pharmacy as *prima facie* evidence of competency in the curriculum subjects, and no longer subject graduates to written examinations in the subjects embraced in the curriculum?

Let these questions rest a moment while we pursue our inquiry a bit further. Board of pharmacy membership is predicated upon five or ten years' practical experience, and upon the members being actually engaged in the operation of retail pharmacies. This in itself assures that board members are five or ten years, and frequently more, removed from the currents of pharmaceutical education, and thus not acquainted with the prevailing theoretical and factual bases of the sciences upon which the curriculum is based and in which the boards examine. Research by great minds of the world has pushed the boundaries of knowledge further and further aside, and with a speed which is little short of bewildering.

In a recent speech, this fact was recognized by Dr. Lotus D. Coffman, president of the University of Minnesota. Discussing the need for adult education and the ways and means of providing it, President Coffman said:

It is clear to everyone familiar with the situation that we are not accomplishing as much as we wish by these means. Certain forces tend to keep the adult population in a state of comparative ignorance. One of these is the speed with which human knowledge is increased. At Minnesota we found it necessary, because of the advances in medical sciences, to repeat a course in the senior year of the medical school that had been given in the freshman year. Fifteen years ago I knew all of the statistical techniques in educational inquiry, but when a controversy arose in our institution with some statistical experts in another institution and copies of their letters passed over my desk, I had to admit that I didn't know what they were saying. Nearly every professional man finds himself in the same situation sooner or later, partly because new knowledge has accumulated too rapidly for him and partly because of his own inertia.

The same facts were recognized many years ago by Woodrow Wilson, when he was still the president of Princeton University:

New inventions, fresh discoveries, alterations in the markets of the world throw accustomed methods and the men who are accustomed to them out of date and use without pause or pity. The man of special skill may be changed into an unskilled laborer overnight. Moreover, it is a day in which no enterprise stands alone or independent, but is related to every other, and feels changes in all parts of the globe.

If these observations apply to the pharmacy curriculum today, they are certain to apply with greater force tomorrow. It must be apparent to all that greater and greater emphasis must be placed upon the biological sciences for the good and sufficient reason that the biological sciences are becoming of greater and greater importance to pharmacy. Physiological drug testing, pharmacology, biochemistry, endocrinology, to mention only a few, are certain to demand more time of the student in the years ahead, and will be of greater significance to medicine and pharmacy as time moves on.

Many of the more important subjects included in the college curriculum are not now, and have never been, the subject of state board examination. These include such cultural subjects as English, French, German, economics, history, law, and even many of the sciences such as bacteriology, biology, zoology, pharmacology, etc., have appeared in state board examinations only to a very slight extent. Of the whole college curriculum, state board examinations have had to do only with the subjects classed, more or less roughly, as pharmacy,

chemistry, and *materia medica*. However, only a few boards have included questions in physical chemistry, biological chemistry, and few indeed have attempted questions in pharmacology and biological drug assays.

The point I wish to make is we have been accepting the college grades in some of the most important subjects in the curriculum. Of course, it may be said that the subjects which I have referred to as not being embraced in state board examinations are cultural or purely scientific, and thus have no bearing upon the competency to practice pharmacy. This position is hardly tenable, however, in the light of the present advancement in public health, and with a knowledge of the trends so clearly evident. Can anyone claim that a knowledge of bacteriology is not essential to the modern pharmacist? Isn't it generally recognized that the pharmacist's lack of knowledge of biology is one of his most glaring defects? Can anyone today claim a worth while knowledge of modern chemistry without knowing much about the wonders of physical chemistry?

Instead of insisting that these subjects are not essential, it would be much more accurate to explain their absence from state board examinations on historical and traditional grounds. State board examinations, largely through necessity, conform closely to their early patterns, and have shown no disposition or intention of moving in the vanguard of modern science. Then too, many of these sciences were not taught in the days when most of us were in college, and the few that did have the advantage of this later training have lost touch with it by being compelled to meet the requirements for board membership.

Then again, we have another well settled precedent to which we can refer. The whole system of reciprocity is properly based upon the recognition of grades made in examinations conducted in the several states. An applicant comes to Maryland from Ohio, and Maryland, without quibble or questions, gives full faith and credit to the grades made in Ohio. Not only do we accept the grades made in Ohio, but we go much further and recognize registration in Ohio as fully equivalent to registration in Maryland, and proceed to issue a Maryland certificate of registration, based entirely upon our respect for and confidence in the integrity of the Ohio board. What difference, in principle, is there between Maryland accepting the grades made in an examination before the Ohio

Board of Pharmacy in chemistry, and a grade made in the same subject in Ohio State University, or in any other well conducted and universally recognized teaching institution?

I should like to see the boards of pharmacy devote their time and attention to a searching practical examination of such a character that it would have a reasonable relationship to the competency and fitness of the applicant to enter upon the practice of pharmacy. Certainly, the practical pharmacy examination, as now given, is not sufficiently broad, is not sufficiently inclusive, and is not sufficiently representative of the practice of pharmacy to justify the confidence which we have reposed in it. It must stand to reason that it is beyond the power of anyone to select five or six, or twice that many, physicians' prescriptions and say that they represent the whole field of practical pharmacy, and thus constitute sufficient basis upon which to decide whether the applicant is competent or not.

I should like to see, at least, three days set aside for an examination in practical pharmacy, which will be as inclusive and as authoritative as it is possible to make it within the time allotted to it. This examination could be so developed as to test the applicant's knowledge of those chemical facts which he will meet with in prescription practice. It could be so diversified as to draw from the applicant a knowledge of the most frequently used pharmaceutical technique. It could be so arranged as to make the applicant display his knowledge of the manipulations and processes likely to be met with in dispensing practice. In other words, the entire time of the state board examinations could be intelligently spent in a practical method of determining whether the applicant is or is not competent to assume the responsibilities of a pharmacist, and to react intelligently to the problems with which, as a pharmacist, he is certain to be confronted.

In this connection, let me emphasize that I do not have in mind a practical pharmacy examination such as has been customarily conducted by the boards. These examinations necessarily can not test the applicant's full familiarity with dispensing pharmacy, and the method of grading the practical pharmacy examination in most states throws little light on the subject. The time allotted is grossly insufficient and the examinations themselves much too limited to be of much real value. It seems to me the practical pharmacy examination is by all odds the most important branch of state board ex-

aminations, and our best talents should be brought to bear upon it, so as to develop it in the best possible manner. In some states, notably New Jersey, some thought has been given to developing the practical pharmacy examination so that it may actually reflect the competency of the applicant for this branch of pharmaceutical work.

Let me state that I believe the actual laboratory examination should be supplemented with a written examination such as will thoroughly show the applicant's intimate knowledge of the work which he will be called upon to do in the pharmacy laboratory. This written examination could deal with, and should deal with, the chemistry, pharmacy, therapeutics, toxicology, posology, and all other facts bearing upon these specific operations. The questions should be so designed as to elicit from the applicant his knowledge of the why and wherefore of the procedure which he adopts, together with a full explanation of the procedure itself. I am strongly inclined to feel that such a type of examination would be of much greater value to the boards themselves, and a close study of the work which the applicant turned in, together with his written explanation of the work itself, would have a direct bearing upon his competency to engage in the practice of pharmacy.

As stated above, I am convinced that much of the present state board examinations have little to do with the competency of a pharmacist, and they certainly must be looked upon as quite inadequate as a means of determining just how well the applicant has coped with the pharmaceutical curriculum. If the examinations do have slight relationship to the applicant's competency, and are inadequate in determining how well he has mastered the pharmacy course, then why not recognize the situation, and use our time and talents in that type of examination for which boards are peculiarly fitted, and which would be of much greater value in determining the competency of applicants than is now the case?

Let me emphasize a point which I made at the beginning of this address; namely, that the practicing pharmacist is by all odds the man best qualified to determine what a pharmacist needs to do in order to show his competency in a practical sense. After all, the man best fitted to decide the qualifications which a pharmacist needs to perform the practical functions of pharmacy are the state board of pharmacy members themselves. This, I take it, is not a college function, and one which

the educators as a group do not claim to be their function. It also emphasizes the wisdom of those provisions in the pharmacy acts which require members of state boards of pharmacy to have been actually engaged in the retail drug business a specified number of years, and to remain actually engaged in the retail drug business just so long as they hold membership on the board.

Of course, the thoughts which I have presented here may be looked upon as somewhat new, but I rather suspect that at various times most of you have thought along the same line. At any rate, a thing is not to be held on to simply because it is old, and a thing is not to be condemned simply because it is new. If what I have suggested is logical, sensible, and in tune with the progress being made in the pharmaceutical educational field, then I suggest that we give close study to it, so that, in deciding our future policy, we might be guided by reason and not by tradition, and, certainly, not by prejudice.

Nothing I have said should be construed as indicating that I would minimize the importance of boards of pharmacy, and I believe an understanding of my discussion will demonstrate that the boards will become of greater importance if they will devote their time and energies to that work for which they are pre-eminently fitted. While I myself am fairly well convinced that the proposals which I have advanced are sound and logical, nevertheless, I have no desire at all to have them officially approved by this Association at this time. These remarks are largely the result of my own individual thinking, based on my knowledge of the facts as they exist and my understanding of the trends in education, which I think will become more important in the future, and are to be looked upon as expressive of my desire that board of pharmacy examinations may in reality become what they are in theory; namely, authoritative determinations of an applicant's competency to enter upon the practice of pharmacy.

Simply that the practicality of these views may be tested, I do hope that we may have a further study of the matter, and I, therefore, recommend that the incoming president set up a special committee to inquire further into this matter, and to report its conclusions at the next annual convention, if possible. I further suggest that copies of this address be sent to the secretary of each board of pharmacy, with the request that they study it conscientiously and impartially, and give their views to the committee herein proposed. I should

like, too, to have the proposal become a part of the program of our District meetings next year, so that it may be fully, completely, and critically analyzed and discussed.

Nothing included in this address should be looked upon as suggesting that boards of pharmacy haven't a valid interest in pharmaceutical education. The proposals which I have discussed would indicate that they should have a much greater interest in pharmaceutical education than they have heretofore manifested. If boards of pharmacy should come to accept, in time, college graduation as a *prima facie* presumption of competency in curriculum subjects, and should, therefore, refrain from requiring graduates of recognized schools to take written examinations before the boards in the subject matter of the curriculum, then the boards should be brought into a much closer relationship with the schools themselves. I do not know what that relationship should be, and I am not particularly concerned about it if, under it, the boards could be kept fully in touch with what the schools are doing and fully familiar with the means and methods of developing the pharmaceutical curriculum, and maintaining its requirements and standards.

While I have purposely refrained from any discussion of the routine activities of the Association, feeling that these could be more appropriately included in the report of the secretary and the report of the executive committee, I do, nevertheless, feel it necessary to call upon the member boards to support the Association wholeheartedly, and to give it that loyalty and cooperation which it richly deserves.

There have been some troublesome developments during the past year, and some which go to the very heart of our splendid system of reciprocity. These have been dealt with as the occasion arose, and every effort expended in maintaining the integrity and the solidarity of the Association. It must stand to reason that the splendid success of the National Association of Boards of Pharmacy has come about not only from its intelligent leadership but because its objectives have been the objectives of the individual states, and its program has had behind it the unified support of the individual states. It must stand to reason, too, that if the Association is to continue to discharge its important function and to maintain a system of universal reciprocity, it must have behind it the same unified cooperation and support.

Now, in this address, I have departed from the traditional

addresses of National Association of Boards of Pharmacy presidents. I have not discussed the operations of the central office, as you know, and I know that these are primarily the work of the secretary, and he should be able to discuss his work in his own way. I should, nevertheless, be remiss if I did not tender to Dr. H. C. Christensen my very sincere appreciation for the very efficient manner in which he has conducted the affairs of the Association, and for the high standing which the Association has long enjoyed among the professional organizations of this country. The National Association of Boards of Pharmacy is looked upon as the most successful organization of its kind in America, and representatives of other professional fields acknowledge this to be a fact. I am simply stating what everyone knows to be true, when I say that the high standing of the Association and the splendid reputation which it enjoys are very largely the work of H. C. Christensen. The National Association of Boards of Pharmacy may be looked upon as proof of that old adage: "A man's work is but the length and the shadow of the man". I know I voice our feeling of gratification when I state that of all the distinguished men in America who have been the recipients of the Remington Honor Medal no one has deserved this distinction more than has our good friend, H. C. Christensen. It was my privilege sometime ago to state elsewhere my appreciation of Dr. Christensen, and so let me close this reference to him now in the same language I did then. "Dr. Christensen is in every sense a superlative figure. The Remington Medal has never been more worthily bestowed."

Now in conclusion, let me express my very deep and sincere thanks to the members of the executive committee for the splendid manner in which they have looked after the affairs of the Association during the year, and to other committee members whose work has been of great value. I desire particularly to commend the conduct of the central office, and to express my thanks to Secretary Christensen and Mrs. Bowen for the efficient manner in which they have attended to the business of the Association.

It has been a great pleasure for me to serve this Association in the capacity of president, and I hereby tender my sincere thanks to the membership for the confidence which they have reposed in me.

The Modernization of Pharmacy Laws*

ROBERT L. SWAIN

Secretary of the Maryland Board of Pharmacy

It will be recalled that this Committee presented a comprehensive report to the 1937 meeting of the American Pharmaceutical Association. That report dealt, more or less, with the philosophical basis of pharmaceutical legislation and at the same time pointed out some practical means whereby the modern trends in pharmaceutical education and public health might be reflected in pharmaceutical legislation.

This report has been widely publicised. It appeared in the October issue of the *American Journal of Pharmaceutical Education*, the November issue of the *Journal of the American Pharmaceutical Association*, the *Proceedings of the National Association of Boards of Pharmacy*, and reprints of the report as it appeared in the *Journal of American Pharmaceutical Association* were mailed to every Board of Pharmacy of the United States, as well as to many other interested persons.

Reference to the report has been made in other pharmaceutical publications, so it would appear that the Committee's views, in so far as they are reflected in the report delivered last year, have been fairly well disseminated. It is the desire of the Committee that the report submitted this year shall be looked upon as an extension of last year's report. This report will, therefore, not seek to duplicate or restate any of the points discussed in the 1937 report, but rather will deal with a limited number of particular topics.

It was the hope of the Committee that it would be possible on the basis of the views expressed last year, to submit to this convention a tentative draft of a modernized pharmacy act. Several members of the Committee have cooperated closely with the Chairman during the year and the Chairman himself has devoted a great deal of time and attention to the work. However, due to a number of circumstances, most of which were utterly beyond the control of the Chairman or the Committee members, it will not be possible to

*This paper is a continuation of the work of the Committee on Modernization of Pharmacy Laws. The original report was published in Volume I, Number 4 of this Journal. The personnel of the Committee also, will be found there.

submit the draft at this meeting, although it is confidently hoped to have it ready and available some time this fall.

Pharmacy acts, without exception, exclude physicians, dentists, and veterinarians from their provisions when engaged in compounding and dispensing their own prescriptions and a few go so far as to permit these professional practitioners to supply their patients any medicinal compounds and preparations which to them may seem fit and proper.

Practically all pharmacy laws exempt wholesale druggists from their requirements and with few exceptions, make no attempt to control the manufacture of drugs and medicines. It is well to keep these sweeping exemptions in mind while attempting to rationalize this whole field of pharmaceutical legislation.

A study of the present pharmacy laws displays a uniform hope that through them a satisfactory control over the distribution of drugs, medicines, and poisons, might be attained but such a study also shows that this control is one of hope only, as the acts contain provisions which, in many states, practically nullify the laws themselves.

While pharmacy acts are designed solely to regulate and control the practice of pharmacy and the compounding and dispensing of drugs, medicines, and poisons, only a few attempt to define drugs, medicines, or poisons in specific language, and a much smaller number have sought to define the practice of pharmacy. In other words, the Committee feels that pharmacy laws suffer from a failure or inability to basically define the subject matter upon which the act is to operate. This point is graphically brought out by a study of the definitions of the word "pharmacy" as they appear in the pharmacy acts of the several states.

DEFINITIONS OF THE TERM "PHARMACY" AS FOUND IN STATE PHARMACY ACTS

Simply as a matter of convenience, the definitions of the word "pharmacy" as they appear in the various state pharmacy laws, are set out in the following quotations from the pharmacy acts themselves. No attempt has been made to include the exact definition found in every state law because many of them admit of classification under one general heading and the differences are slight and largely a matter of language only. It is urged that these definitions

be studied as they support the contention that pharmacy laws are defective in the matter of basic definitions.

ALABAMA

"Pharmacy", when not otherwise specifically designated "Apothecary Shop" or "Drug Store", shall for the purpose of this Act, mean a place registered by the Board of Pharmacy, where drugs, medicines, prescriptions, chemicals or poisons are compounded, dispensed or re-tailed.

ARIZONA (See Maryland)

ARKANSAS

"Pharmacy", when not otherwise limited, means the place registered by the Board in which drugs, chemicals, medicines, prescriptions, and poisons are compounded, dispensed or sold at retail.

The definitions of the word "pharmacy" as found in the pharmacy acts of the following states, closely resemble that of Arkansas: Maine, New Hampshire, New York, Oregon, South Dakota.

CALIFORNIA (See Maryland)

COLORADO (See Delaware)

CONNECTICUT (See Delaware)

In many pharmacy acts the words "pharmacy" or "drug store" are not defined, although in discussing the duties, rights, and privileges of the pharmacist, it might be said that a definition is attempted by indirection at any rate. A clear illustration of this is to be found in the Delaware Pharmacy Law from which the following quotation is taken:

"It shall be unlawful for any person not licensed as a pharmacist within the meaning of this chapter to conduct or manage any pharmacy, drug or chemical store, apothecary shop, or other place of business, for the retailing, compounding or dispensing of any drugs, chemicals or poisons, or for the compounding of physicians' prescriptions, or to keep exposed for sale at retail any drugs, chemicals or poisons, except as in this chapter provided."

The pharmacy laws of the following states closely resemble that of Delaware:

Colorado	Kentucky	New Mexico
Connecticut	Minnesota	North Carolina
District of Columbia	Mississippi	Oklahoma
Florida	Missouri	Rhode Island
Idaho	Montana	South Carolina
Indiana	Nevada	Washington
Kansas	New Jersey	Wyoming

DISTRICT OF COLUMBIA (See Delaware)

FLORIDA (See Delaware)

GEORGIA

The term "drug store", "pharmacy", or "apothecary", wherever used in this Act, shall be construed to mean a place where drugs,

medicines, or poisons are dispensed, compounded or sold at retail under the direction and direct supervision of a person who is duly licensed and registered by the Georgia Board of Pharmacy to practice in Georgia.

IDAHO (See Delaware)

ILLINOIS

The term drug store or pharmacy shall for all purposes of this Act be construed to mean a shop, store or other place of business where drugs, medicines or poisons are compounded, dispensed or sold at retail.

INDIANA (See Delaware)

IOWA

"Pharmacy" shall mean a drug store in which drugs and medicines are exposed for sale or sold at retail, or in which prescriptions of licensed physicians and surgeons, dentists, or veterinarians are compounded and so'd by a registered pharmacist.

It is interesting to note that in Iowa an attempt is also made to define the practice of pharmacy in the following manner:

For the purpose of this title the following classes of persons shall be deemed to be engaged in the practice of pharmacy:

1. Persons who engage in the business of selling, or offering or exposing for sale, drugs and medicines at retail.
2. Persons who compound or dispense drugs and medicines or fill the prescriptions of licensed physicians and surgeons, dentists, or veterinarians.

The Nebraska Act apparently does not define "pharmacy" but does define the "practice of pharmacy" substantially the same as in the Iowa Law.

The Vermont Act also attempts to define the practice of pharmacy in the following language:

The words "practice of pharmacy," as used in this chapter, shall mean the compounding of physicians' prescriptions and the preparation of ingredients therefor.

KANSAS (See Delaware)

KENTUCKY (See Delaware)

LOUISIANA (See Maryland)

MAINE (See Arkansas)

MARYLAND

Every store or shop or other place where drugs, medicines, or medicinal chemicals are dispensed or sold at retail, or displayed for sale at retail, or where physicians' prescriptions are compounded, or which has upon it or displayed within it, or affixed to or used in connection with it, a sign bearing the word or words "Pharmacist", "Pharmacy", "Apothecary", "Drug Store", "Druggist", "Drug", "Medicines", "Medicine Store", "Drug Sundries", "Remedies" or any word or words of similar or like import, or where the characteristic show bottles or globes filled with colored liquids or otherwise colored, are exhibited or any store or shop or other place, with respect to which any of the

above words are used in any advertisement shall be considered a pharmacy, within the meaning of this sub-title.

The definitions of the word "pharmacy" as found in the pharmacy acts of the following states, closely resemble that of Maryland: Arizona, California, Louisiana, Ohio, and Wisconsin.

The pharmacy acts of many states prohibit the use of any of the words quoted in the Maryland Law, except by a bona fide pharmacy operated in conformity with the law, but do not utilize this method in defining a pharmacy or drug store itself.

MASSACHUSETTS

In Massachusetts no attempt is made to define either "drug store" or "pharmacy" and the law apparently deals with the regulation of the "drug business".

"Drug business", under the Massachusetts Act is defined as follows:

"Drug business", as used in the two following sections, shall mean the sale, or the keeping or exposing for sale of drugs, medicines, chemicals or poisons, except as otherwise provided in section thirty-five, also the sale or the keeping or exposing for sale of opium, morphine, heroin, codeine or other narcotics, or any salt or compound thereof, or any preparation containing the same, or cocaine, alpha or beta eucaine, or any synthetic substitute therefor, or any salt or compound thereof, or any preparation containing the same, and the said term shall also mean the compounding and dispensing of physicians' prescriptions.

MICHIGAN

From and after the taking effect of this act, every place in which drugs, medicines or poisons are retailed or dispensed or physicians' prescriptions compounded, shall be deemed a pharmacy or drug store, and the same shall be in charge of and under the supervision of a registered pharmacist, and subject to the provisions of this act.

MINNESOTA (See Delaware)

MISSOURI (See Delaware)

MISSISSIPPI (See Delaware)

MONTANA (See Delaware)

NEBRASKA (See Iowa)

NEVADA (See Delaware)

NEW HAMPSHIRE (See Arkansas)

NEW JERSEY (See Delaware)

NEW MEXICO (See Delaware)

NEW YORK (See Arkansas)

NORTH CAROLINA (See Delaware)

NORTH DAKOTA

Every store or shop where drugs, medicines or chemicals are dispensed or sold at retail, or dispensed for sale at retail for medicinal purposes, or where prescriptions are compounded, shall be deemed a "pharmacy" or "drug store" within the meaning of this Act.

OHIO (See Maryland)

OKLAHOMA. (See Delaware)

OREGON (See Arkansas)

PENNSYLVANIA

The term "pharmacy", when not otherwise limited, shall, for all the purposes of this act, be taken to mean a retail drug store, or any place where drugs, medicine, or poisons are compounded, dispensed, prepared, or sold at retail.

The definition of the word "pharmacy" as found in the Pharmacy Act of Utah, closely resembles that of Pennsylvania.

RHODE ISLAND (See Delaware)

SOUTH CAROLINA (See Delaware)

SOUTH DAKOTA (See Arkansas)

TENNESSEE

It shall be unlawful for any person, not a registered pharmacist within the meaning of this chapter, to open or conduct any pharmacy, or any retail drug or chemical store as the proprietor thereof, unless he shall have in his employ and place in charge of such pharmacy or store such a registered pharmacist who shall have the supervision of that part of the business requiring pharmaceutical skill and knowledge, or to engage in the occupation of compounding or dispensing medicines on prescriptions of physicians, dentists, or veterinarians, or to sell at retail, for medical purposes, any drugs, chemicals, poisons, or pharmaceutical preparations until he has complied with the provisions of this chapter.

The Tennessee Act is unique in that it seems to recognize that there may be divisions or departments of a drug store which do not require the services of a registered pharmacist and for this reason the Act directs that a registered pharmacist shall have supervision over that part of the business requiring pharmaceutical skill and knowledge.

So far as the Committee is aware, this is the only pharmacy act of the United States which contains any such provision.

TEXAS

A "pharmacy" or "drug store" as used in this Act is any store or place where drugs or medicines are sold or furnished in any bona fide manner at retail to the consumer wherein a registered pharmacist is continuously employed.

UTAH (See Pennsylvania)

VIRGINIA

The word "pharmacy", as used in this chapter shall include every place (except as hereinafter provided) in which drugs, medicines or poisons are retailed or dispensed, or are displayed for sale at retail, or are kept in stock in other than manufacturers' or wholesalers' original packages, or in which physicians' prescriptions are compounded.

WASHINGTON (See Delaware)

WEST VIRGINIA

It shall be unlawful for any person not a registered pharmacist within the meaning of this article, who does not employ a registered pharmacist within the meaning of this article, to conduct any pharmacy, drug store, apothecary shop or store for the purpose of retailing, compounding or dispensing medicines, poisons or narcotic drugs.

WISCONSIN (See Maryland)

WYOMING (See Delaware)

A study of the foregoing definitions will show that in practically every instance the definitions are defective, mostly because of the limitations which the definitions impose.

It is believed that the term "pharmacy" should be defined broadly, and should be comprehensive enough to meet any and every situation met with in the distribution of drugs and medicines. For this reason the Committee desires to submit the following definition as, in its judgment, it really is a modern interpretation of "pharmacy" and also a modern interpretation of the term "drugs".

SUGGESTED DEFINITION FOR A PHARMACY
(TENTATIVE)

The term "pharmacy" or "drug store" shall be held to mean and include every store or shop or other place where (1) drugs, which term shall include medicines or medicinal chemicals, are dispensed or sold at retail, or displayed for sale at retail, or (2) where physicians' prescriptions are compounded, or (3) which has upon it or displayed within it, or affixed to or used in connection with it, a sign bearing the word or words "Pharmacist", "Pharmacy", "Apothecary", "Drug Store", "Druggist", "Drugs", "Medicines", "Medicine Store", "Drug Sundries", "Remedies", or any word or words of similar or like import, or (4) where the characteristic show bottles or globes filled with colored liquids or otherwise colored, are exhibited, or (5) any store or shop or other place, with respect to which any of the above words are used in any advertisement.

The term "drug", as used in this section, means (1) articles recognized in the official United States Pharmacopoeia, official Homoeopathic Pharmacopoeia of the United States, or official National Formulary, or any supplement to any of them; and (2) articles intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease in man

or other animals; and (3) articles (other than food) intended to affect the structure or any function of the body of man or other animals; and (4) articles intended for use as a component of any articles specified in clause (1), (2), or (3); but does not include devices or their components, parts, or accessories.

It is the belief of the Committee that the pharmacy acts should regulate the practice of pharmacy and the dispensing of drugs and medicines, not only in retail pharmacies and drug stores, but in hospitals, dispensaries, and other similar institutions. For this reason the definition just quoted will be critically studied and if it is not the consensus of opinion that it is sufficiently broad to include hospitals and dispensaries, it will be recast so as to accomplish this specific purpose.

It will be noted that up to this point the Committee has not decided whether it is feasible to include devices under the general provisions of the pharmacy act. It is true that devices used in the cure, prevention, treatment and alleviation of diseases, are now embraced within the purview of the Federal Food, Drug and Cosmetic Act, and study should be given to the matter to determine whether or not the pharmacy act should be broadened so as to include them within its general provisions.

CONTROL OF THE MANUFACTURING OF COSMETICS

Some discussion should also be given to cosmetics, particularly as these commodities too, are now the subject of regulation and control by the Federal Food, Drug, and Cosmetic Act. It is believed that the manufacture of cosmetics should be surrounded with the same regulation and control as is given to the manufacture of drugs and medicines, and that if it has been found feasible to require manufacturers of drugs and medicines to operate under permits issued by the board of pharmacy, then it would seem logical to extend the pharmacy acts so as to require the manufacturers of cosmetics to operate under permits similarly issued.

Whether the state acts should go any further with respect to the regulation and control of the manufacture and distribution of cosmetics has not received much study at the hands of the Committee.

PROFESSIONAL AND TECHNICAL EQUIPMENT FOR DRUG STORES

In recent years, largely under the impetus of the National Association of Boards of Pharmacy, much attention has been given to the facilities which the average drug store possesses for use in the practice of pharmacy. Surveys conducted by state boards have shown that in many instances the professional and technical equipment was extremely meagre and in some instances absolutely inadequate.

In the light of this factual information, legislation has been proposed in several states to vest in the board of pharmacy the power to designate the minimum of such professional and technical equipment as in its judgment the daily practice of pharmacy would require. It is believed that this is a progressive step and that any modern pharmacy act should include this provision.

In order that this matter might be specifically available to those who are interested, the so-called minimum equipment provisions of the Maryland and Virginia Laws are incorporated herein. Maryland, so far as the Committee has been able to ascertain, was the first state to adopt legislation dealing with this subject and for this reason the following Maryland statute will be found of interest.

"Every registered pharmacy must be equipped with proper pharmaceutical utensils so that prescriptions can be properly filled and United States Pharmacopoeia and National Formulary preparations properly compounded. The Maryland Board of Pharmacy shall prescribe the minimum of such professional and technical equipment which a pharmacy shall at all times possess. No permit shall be issued or continued for the conduct of a pharmacy until the provisions of this section shall have been complied with, and any person violating this section, shall, upon conviction, be deemed guilty of a misdemeanor and fined not more than fifty (\$50) dollars."

The minimum equipment provisions of the Virginia Act differ somewhat from the Maryland law and the Virginia Act is quoted here so that the contrast between the two statutes might be studied.

"Every registered pharmacy must be equipped with proper pharmaceutical utensils so that prescriptions can be properly filled and United States Pharmacopoeia and National Formulary preparations properly compounded. The Virginia Board of Pharmacy shall prescribe the minimum of such professional and technical equipment which a pharmacy shall at all times possess, and such list shall include the latest revisions of the United States Pharmacopoeia and the National Formulary. No permit shall be issued or continued for the

conduct of a pharmacy until or unless the provisions of this paragraph have been complied with."

Minimum equipment laws have been passed in a number of other states but the Maryland and Virginia statutes may be looked upon as typical and as meeting the most modern view on the subject.

CONTROL OF THE MANUFACTURING OF DRUGS AND MEDICINES

Persons who have been giving real study to the modernization of pharmacy laws, feel that they should regulate and control the large scale production of drugs and medicines, to the same extent and to the same degree that they regulate and control the practice of pharmacy. No manufacturers of drugs and medicines, and this applies with equal force to cosmetics, toilet articles, and dentifrices, should be permitted to operate without first having shown to the satisfaction of some public agency, that all manufacturing operations will be under the personal supervision of a registered pharmacist or other person whose qualifications for this work are deemed adequate and the manufacturer should also be compelled to show that his manufacturing facilities are sufficient and adapted to the manufacturing operations in which he seeks to engage.

In order to accomplish these ends, it has been suggested that all manufacturers of drugs, medicines, cosmetics, toilet articles, and dentifrices, should be required to operate under annual permits issued by the board of pharmacy, as it is felt that this type of regulation and control would be sufficient to restrict the manufacturing of these highly essential commodities to persons actually qualified to manufacture them, and at the same time would exclude from the field, those obviously unfit.

It is interesting to note that this matter has been dealt with by legislation in at least three states, Maryland, Virginia, and Texas, and each of these acts are reproduced here for the sake of convenience:

MARYLAND

No drugs, or medicines, or toilet articles, or dentifrices or cosmetics, shall be manufactured, made, produced, packed, packaged, or prepared within this state, except under the personal and immediate supervision of a registered pharmacist or such other persons as may

be approved by the Maryland Board of Pharmacy after an investigation and a determination by the said Board that they are qualified by scientific or technical training and/or experience to perform such duties of supervision as may be necessary to protect the public health and safety; and no person shall manufacture, make, produce, pack, package or prepare any such articles without first obtaining a permit so to do from the Maryland Board of Pharmacy. Such permit shall be subject to such rules and regulations, with respect to sanitation and/or equipment, as the said Board of Pharmacy may from time to time adopt for the protection of the public health and safety.

The application for such permit shall be made on a form to be prescribed and furnished by the said Maryland Board of Pharmacy, and shall be accompanied by the required fee of one (\$1) dollar, which amount shall also be paid as the fee for each renewal of such permit. Separate applications shall be made and separate permits issued for each separate place of manufacture, making, production, packing, packaging or preparation.

Permits issued under the provisions of this section shall be exposed in a conspicuous place in the factory or place for which issued; such permits shall not be transferable; shall expire on the last day of December following the date of issue and shall be renewed annually.

Any person aggrieved by any rule or regulation promulgated by the said Board of Pharmacy under the provisions of this section shall be entitled to have his complaint set down for hearing by said board. Requests for such hearings shall be made in writing and shall specify in detail the basis for the complaint, and the hearing shall be held within ten (10) days from the date of the receipt of said request by the said board, unless postponed by mutual agreement.

The said board shall have the power to make such rules and regulations with respect to the conduct of such hearings as may be necessary.

Any person aggrieved by any order of the said Board of Pharmacy, passed after such hearing, may appeal therefrom to the Circuit Court of the county in which such person resides, and if such person is a resident of Baltimore City, to the Circuit Court of Baltimore City or the Circuit Court No. 2 of Baltimore City, any time within thirty (30) days after the passage of the said order; and upon said appeal, the court shall hear and determine the issues raised thereby de novo.

Any person, firm or corporation violating any of the provisions of this section, and any permittee hereunder who shall violate any of the conditions of his permit or any of the rules and regulations adopted by the said Maryland Board of Pharmacy in pursuance of the power hereby conferred, shall upon conviction, be deemed guilty of a misdemeanor and fined not more than fifty (\$50) dollars for each offense, and each and every day such violation continues shall constitute a separate and distinct offense; and, upon conviction of a permittee hereunder, his permit shall also forthwith be revoked and become null and void.

Nothing in this section shall be construed to apply to those operating retail pharmacies or drug stores.

All permit fees collected under the provisions of this section shall be used by the Maryland Board of Pharmacy, so far as may be necessary, for the enforcement of the provisions of this sub-title.

VIRGINIA

No drugs, medicines, toilet preparations, dentifrices or cosmetics (except soaps for which no curative or therapeutic claims are made), shall be manufactured, made, produced, packed, packaged, or prepared within this State, except under the personal and immediate supervision of a registered pharmacist or such other person as may be approved by the Virginia Board of Pharmacy after an investigation and a determination by the said board that they are qualified by scientific or technical training to perform such duties of supervision as may be necessary to protect the public health and safety (except that this provision shall not apply to manufacturers to whom were granted permits prior to January first, nineteen hundred and thirty-eight); and no person shall manufacture, make, produce, pack, package, or prepare any such preparations without first obtaining a permit so to do from the Virginia Board of Pharmacy. Such permits shall be subject to such rules and regulations, with respect to sanitation and equipment, as the said board of pharmacy may from time to time adopt for the protection of the public health and safety.

Permits issued under the provisions of this section shall be exposed in a conspicuous place in the factory or place for which issued. Such permits shall not be transferable, shall expire on the last day of December following the date of issue, and shall be renewed annually.

The application for such permit shall be made on a form to be prescribed and furnished by the said Virginia Board of Pharmacy and shall be accompanied by the required fee of five (\$5.00) dollars, which amount shall also be paid as the fee for each renewal of such permit. Separate applications shall be made and separate permits issued for each separate place of manufacture, making, production, packing, packaging or preparation.

The Virginia Board of Pharmacy may revoke a permit for failure to comply with its rules and regulations promulgated pursuant to the provisions of section one hereof. Any person aggrieved by any action taken by the said board of pharmacy under the provisions of this act shall be entitled to have his complaint set down for hearing by said board. Requests for such hearings shall be made in writing and shall specify in detail the basis for the complaint, and the hearing shall be held within ten (10) days from the date of the receipt of said request by the said board, or its authorized agent, unless postponed by mutual agreement.

Any person aggrieved by any order of the said board of pharmacy, entered after such hearing, may appeal therefrom to a court of record of the place of his residence, at any time within thirty (30) days after the entrance of the said order; and upon said appeal, the court shall hear and determine the issues raised thereby de novo.

Any person, firm or corporation, except a registered pharmacy, who shall manufacture, make, produce, pack, package or prepare within this State drugs, medicines, toilet preparations, dentifrices or

cosmetics without a permit or after revocation thereof, shall, be fined not less than fifty (\$50.00) dollars, nor more than five hundred (\$500.00) dollars for each offense.

Nothing in this section shall be construed to apply to the proprietor of a registered pharmacy.

TEXAS

Every person, firm, or corporation desiring to continue operating a retail pharmacy or drug store in this State, as the same is defined herein, and every manufacturer of drugs and medicines as defined herein, after the passage of this Act shall procure from the Board a permit for each store or factory to be operated by making within six (6) months application to the Board upon a form to be furnished by said Board, setting forth under oath ownership and location, and the name, with the certificate number, of the pharmacist registered in this State, or physician, dentist, veterinarian or chiropodist who is to be continuously employed by the pharmacy or drug store or factory, provided that the Board may in its discretion refuse to issue such permit to such applicant unless furnished with satisfactory proof that said applicant is engaged in the business of conducting a pharmacy, drug store, or factory for the purpose of manufacturing drugs; provided further that at any time after the issuance of a permit by the Board to such applicant, the Board may revoke or cancel the permit when satisfactory proof has been presented to such Board that said permit holder is not conducting a bona fide pharmacy or drug store. The permit provided for herein shall be issued annually by the Board upon receipt of proper application accompanied by a fee of Two Dollars (\$2); this permit to be displayed conspicuously at all times in the store or factory of original issue. Every person, firm or corporation desiring to open a new pharmacy, drug store, or factory shall procure the permit before mentioned, before commencing business and the same discretionary powers may be used by the Board in passing upon such application. No more than one store or factory may be operated under one permit. In case of change of personnel of registered pharmacists, the Board shall be notified of such change within ten (10) days; provided that the same pharmacists' name shall not appear on more than one (1) permit.

EXEMPTION PROVISIONS OF STATE PHARMACY ACTS

The so-called exemption provisions of the state pharmacy acts constitute the most difficult problem in the whole field of pharmaceutical legislation. There is a general unanimity of opinion with respect to professional standards and little opposition is met with when seeking to raise the levels of pharmaceutical education. In other words, there is general legislative concurrence in any desire on the part of pharmacy to better the professional service which it renders.

However, be the causes what they may, slight progress

has been met with in placing the distribution of drugs and medicines in charge of the pharmaceutical profession and judged by the way the legislatures have dealt with this subject, it would appear that drugs and medicines are merely articles of commerce and trade. Of course, this situation is entirely at variance with the views held by public health administrators, medical men, and the pharmaceutical profession at large.

Drugs and medicines are commercial products only in their incidental sense, as their primary purpose is for the treatment of disease. The view is growing that the unregulated and uncontrolled distribution of drugs and medicines constitutes a major public health problem as was graphically stated in a recent issue of the *New Hampshire Health News*, a monthly publication issued by the State Board of Health of New Hampshire: "The curtailment of the promiscuous sale of drugs by those not trained in the science of pharmacy can be put down as a definite public health need."

The most authoritative study of this subject was made by the Committee on the Cost of Medical Care, and in its final report, the Committee recommended legislation calling for much more stringent regulation of the manufacture and distribution of drugs and medicines. One substantial group in the Committee stated explicitly it would make the recommendation that only qualified pharmacists should be allowed to sell drugs and medicines.

In order that the present chaotic situation may be fully known, a number of the exemption provisions of the state pharmacy acts are incorporated in this report. They should be studied carefully and the facts disclosed made the basis of a determined effort on our part to bring these so-called exemption provisions more in line with current professional opinion.

(It is not contended by the Committee that the following quotations from State laws show the full extent of the exemption provisions as attempt has only been made to quote those portions dealing specifically with the rights and privileges of persons other than pharmacists to deal in some manner with drugs and medicines.)

In the following quotations from the state pharmacy acts it will be noted that there is no similarity in terminology. For instance, the following terms appear: "Board of Pharmacy," "board of pharmacy," "Epsom salt," "epsom salt,"

"Glauber's salt," "glauber's salt," "nitre," "niter," etc. This accounts for the lack of uniformity in the language of the different laws.

ALABAMA

Provided, however, that nothing herein contained shall be construed to prevent . . . the sale of patent or proprietary medicines or remedies, which do not contain opium or cocoa leaves, or any compound, manufacture, salt, derivative or preparation thereof, when sold at retail in original packages.

The exemption provisions as found in the pharmacy acts of Utah and Illinois closely resemble that of Alabama.

ARIZONA

The Arizona Act passed in 1935, provides for the annual registration of pharmacists under permits and also provides "for a proprietary or patent medicine permit which shall be issued to those persons, firms, co-partnerships or corporations, applying for registration under the provisions of this section, to sell, retail, stock, expose or offer for sale in this State, patent or proprietary medicines, in the original package only, and such persons, firms, co-partnerships or corporations so registered and licensed, shall be limited to stocking, exposing for sale, or offering for sale, patent and proprietary medicines in the original package, but such permittees shall not be limited to or required to conduct such business at any fixed place."

The act does not appear to define patent or proprietary medicines.

Under the Arizona statute provision is made for the Board to issue permits to rural dealers. Simply that this type of legislation might be available, the following paragraph taken from the Act is included herein:

"The Board of Pharmacy shall issue a permit to any and all general dealers wishing to deal in the simple household remedies mentioned elsewhere in this section; and said permit shall authorize the person or firm named therein to sell in such locality, but not elsewhere, and under such regulations and restrictions as said board may from time to time adopt, in such manner and form as may be authorized by said board, the following simple household remedies and drugs, to wit:

"Tincture of arnica, spirits of camphor, almond oil, distilled extract witch hazel, syrup of ipecac, syrup of rhubarb, hive syrup, sweet spirits of nitre, tincture of iron, epsom salts, Rochelle salts, senna leaves, carbonate of magnesia, seidlitz powders, quinine, cathartic pills, chamomile flowers, caraway seed, chlorate of potash, moth balls, plasters, salves, ointments, peroxide of hydrogen, gum camphor, blue ointment, asafeotida, saffron, anise seed and saltpeter, and such other remedies or drugs as the board may from time to time designate.

"Provided such permit shall not authorize any such dealer to compound or prepare any prescription or do any of the things herein particularly given to a licensed pharmacist.

The exemption provisions as found in the Pharmacy Acts of Nevada and California, closely resemble those of Arizona. In

California, however, "the permittee must be not less than three miles distant from the store of a registered pharmacist".

ARKANSAS

The provisions of this Act shall not apply to the sale of drugs or medicines when intended for agricultural, technical and industrial use; nor to the sales of wholesale druggists, wholesale or retail grocers, or other wholesale or retail dealers or manufacturers of proprietary medicines in original packages; nor to the sales of those drugs commonly known as "grocer's drugs" in original packages when put up under the direction of a registered pharmacist of this or some other state.

CALIFORNIA (See Arizona)

COLORADO

From and after the passage of this Act, it shall be lawful for licensed drug dealers to keep for sale and to sell in original sealed packages such emergency drugs, medicines and poisons which shall from time to time be designated by the State Board of Pharmacy as emergency needs under a drug dealers license. A licensed drug dealer is defined to be a person of good moral character and not less than twenty-one (21) years of age, who conducts a fixed place of business located not less than five (5) miles from a licensed pharmacy, and who is registered by the Board of Pharmacy to sell in original sealed packages such emergency drugs, medicines, and poisons as the Board shall from time to time designate.

CONNECTICUT

Any store, not licensed as a pharmacy, may sell, in original packages put up by a licensed pharmacist whose name and business address shall be displayed upon the package, any drugs, chemicals, or medicinal compounds or preparations, when a permit to do so shall have been obtained from said commission.

DELAWARE

Provided, however, that nothing in this section shall be construed to interfere with . . . the selling at retail of non-poisonous domestic remedies nor with the sale of patent or proprietary preparations, nor with the sale of poisonous substances which are sold exclusively for use in the arts, or for use as insecticides, when such substances are sold in unbroken packages bearing a label having plainly printed upon it the name of the contents and the word poison.

DISTRICT OF COLUMBIA

And provided further, that persons other than registered pharmacists may sell household ammonia and concentrated lye, in sealed containers plainly labeled, so as to indicate the nature of the contents, with the word "poison", and with a statement of two or more antidotes to be used in case of poisoning, and may sell bicarbonate of soda, borax, cream of tartar, olive oil, sal ammoniac, and sal soda; and persons other than registered pharmacists may, furthermore, sell in original sealed containers, properly labeled, such compounds

as are commonly known as "patent" or "proprietary" medicines, except those the sale of which is regulated by the provisions of sections 201 and 203 of this title.

FLORIDA

Nothing in this Chapter shall apply to . . . the sale by merchants of Paris green, white hellebore and other poisons for destroying insects or to the sale of any substance for the use in the arts, or to the sale of ammonia, asafetida, alum, bicarbonate of soda, borax, camphor, castor oil, cream of tartar, dye stuffs, essence of ginger, essence of peppermint, essence of wintergreen, non-poisonous flavoring essences or extracts, glycerine, licorice, olive oil, sal ammoniac, saltpetre, sal soda, sulphur, blue vitriol, brimstone, pepper, sage, senna leaves, sweet oil, spirits of turpentine, paregoric, Glauber's salts, epsom salts, hive syrup, syrup of ipecac, tincture of arnica, syrup of tolu, syrup of squills, spirits of camphor, sweet spirits of nitre, quinine and all other preparations of cinchona bark, tincture of aconite, and tincture of iron, compound cathartic pills, and other household remedies, and merchants may sell in the original bottle, box or package, any drugs, medicines, chemicals, essential oils, or tinctures, which are put up by pharmacists in bottles, boxes, or packages bearing a label securely affixed, which label shall bear the name of the pharmacist putting up the same, the dose that may be administered to persons three months, six months, one year, three years, five years, ten years, fifteen years, and twenty-one years of age, and if a poison, the name or names of the most prominent antidotes. Such merchants may sell any patent or proprietary medicines.

GEORGIA

This item shall be construed in the interest of the public health and shall not be construed to prohibit the sale by merchants of home remedies, not poisons, or the sale by merchants of preparations commonly known as patent proprietary preparations when sold only in the original and unbroken packages, Paris green, arsenate of lead or preparations containing any of these articles used for killing Lincoln bugs, cabbage worms, caterpillars, all and similar insects, provided the labels, cartons, and packages containing such preparations have the word "POISON" printed across the face, and conform to the United States Pure Food and Drug Act, and general merchants other than druggists shall not be required to register under the provisions of this Act.

IDAHO

Provided, however, that nothing in this section shall be construed to interfere with . . . the selling at retail of domestic non-poisonous remedies; nor with the sale of patent or proprietary preparations which do not contain poisonous ingredients.

The exemption provision of the North Carolina Pharmacy Law closely resembles that of Idaho.

ILLINOIS (See Alabama)

INDIANA

Provided, that nothing in this act shall apply to, nor in any manner interfere with the business of a general merchant in selling any of the following articles, to-wit: Medicines of secret composition, and which are advertised to the general public and popularly known as patent or proprietary medicines, providing said medicines are not poisonous. Also concentrated lye, sodium carbonate, sodium bicarbonate, tobacco, spices, perfumes, flavoring extracts, borax and the following articles in original and unbroken packages, bearing the label of a known pharmaceutical manufacturer, wholesale druggist, or of a registered pharmacist, to-wit: Paregoric, hive syrup, spirit of camphor, tincture of arnica, Epsom salt, quinine sulphate, compound cathartic pills, Paris green, London purple, white hellebore, and such insecticides, disinfectants, dye-stuffs and other chemicals as may be allowed by the board of pharmacy.

IOWA (See Nebraska)

KANSAS

The Kansas Pharmacy Act specifically states that while a physician may "compound his own prescriptions and supply to his patients such articles as may be fit, proper and necessary, the drugs and medicines dispensed by him shall comply with the Kansas Food and Drug Law and be subject to inspection as provided in said law."

The Board of Pharmacy, under the Kansas Act, "is authorized and directed to make and publish uniform rules and regulations . . . which rules and regulations may include, if necessary, for the proper execution of this law, the collection and examination of drugs kept for sale, offered for sale, dispensed or sold in the State of Kansas, by any pharmacist or kept in stock by any physician, merchant, or dispenser."

"It shall be lawful for retail dealers to sell the usual domestic remedies and medicines in unbroken packages."

KENTUCKY

Nothing in this act shall be construed as to apply to, or in any manner interfere with, the sale of the usual non-poisonous domestic remedies and medicines, and patent or proprietary medicine, by country stores in small places or rural districts.

LOUISIANA

Nothing contained in this Act shall in any manner whatever interfere with . . . the making and dealing in proprietary remedies, popularly called patent medicines, nor prevent store keepers from dealing in and selling the commonly used standard medicines and poisons, if all such standard medicines and poisons included in this Section conform in all respects to the requirements of Section 7 (9639). Nor shall this Act apply to any planter furnishing medicines to hands in his employment or leasing lands from him.

MAINE

This chapter shall not apply to physicians who prepare and dispense their own medicines, nor to the sale of non-poisonous domestic

remedies and patent or proprietary preparations usually sold by grocers and others.

MARYLAND

Nothing in this sub-title shall be so construed as to prevent, or in any way make unlawful, or interfere with, the sale or display by general merchants, of any proprietary or patent medicines; or the sale by such general merchants of common'y used household or domestic remedies, or in original, unopened packages, or farm remedies or ingredients for spraying solutions, in bulk or otherwise, provided the said household or domestic remedies are clearly labeled with the ordinary name of the article or articles contained therein and the name of the manufacturer or distributor thereof, or the sale by such general merchants of doses of household or domestic remedies to be consumed upon the premises.

MASSACHUSETTS

Sections thirty and thirty-seven to forty-one . . . shall not apply to . . . the manufacture of patent and proprietary medicines, nor to the sale of such medicines other than the sale at retail of those intended for internal use which contain barbituric acid; nor to the sale by merchants at retail of the following drugs and chemicals used in the arts, or as household remedies; alum, ammonia, bicarbonate of soda, borax, camphor, castor oil, chlorinated lime, citric acid, cod liver oil, copperas, cotton seed oil, cream of tartar, dye-stuffs, epsom salts, flaxseed, flaxseed meal, gelatine, ginger, Glauber's salt, glycerine, gum arabic, gum tragacanth, hops, hyposulphite of soda, licorice, lime water, linseed oil, litharge, magnesia, olive oil, peroxide of hydrogen, petrolatum, phosphate of soda, rhubarb, Rochelle salt, rosin, sal ammoniac, salt-peter, senna, s'ippery elm bark, spices for seasoning, sugar of milk, sulphate of copper, sulphur, tartaric acid, turpentine, extract of witch hazel and zinc oxide; nor to the sale in the original packages of the following, if put up by registered pharmacists, manufacturers or wholesale dealers in conformity with law; flavoring essences or extracts, essence of Jamaica ginger, insecticides, rat exterminators, aromatic spirits of ammonia, spirits of camphor, sweet spirits of niter, syrup of rhubarb, tincture of arnica and tincture of rhubarb; nor to the sale of the following poisons used in the arts, if properly labeled and recorded as provided by section two of chapter two hundred and seventy: muriatic acid, oxalic acid, nitric acid, sulphuric acid, arsenic, cyanide of potassium, mercury, phosphorus and sulphate of zinc.

MICHIGAN

Nothing in this act shall apply to . . . the sale by merchants of ammonia, bicarbonate of soda, borax, camphor, castor oil, cream of tartar, dye stuffs, essence of ginger, essence of peppermint, essence of wintergreen, non-poisonous flavoring essence or extracts, glycerin, licorice, olive oil, sal ammoniac, saltpetre, sal soda, and sulphur, except as herein provided; Provided, however, that in the several towns of this state, where there is no registered pharmacist within five miles, physicians may compound medicines, fill prescriptions, and sell

poisons, duly labeling the same as required by this act, and merchants and drug dealers may sell any drugs, medicines, chemicals, essential oils, and tinctures which are put up in bottles, boxes, packages, bearing labels securely affixed, which labels shall bear the name of the pharmacist putting up the same, the dose that may be administered to persons three months, six months, one year, three years, five years, ten years, fifteen and twenty-one years of age, and if a poison, the name or names of the most prominent antidotes; and to the sale by such merchants of copperas, borax, blue vitriol, saltpetre, pepper, sulphur, brimstone, paris green, licorice, sage, senna leaves, castor oil, sweet oil, spirits of turpentine, glycerine, Glauber salts, Epsom salts, cream of tartar, bicarbonate of soda, sugar of lead and such acids as are used in coloring and tanning, paregoric, essence of peppermint, essence of ginger, essence of cinnamon, hive syrup, syrup of ipecac, tincture of arnica, syrup of tolu, syrup of squills, spirits of camphor, sweet spirits of nitre, quinine, and all other preparations of cinchona bark, tincture of aconite and tincture of iron, or quinine pills, and to the sale of carbolic acid, laudanum, sugar of lead, oxalic acid, duly labeling and registering the same as required by this act; and to the sale of any patent or proprietary medicines.

MINNESOTA

Nothing in the subdivision, however, shall prevent . . . or interfere with the making or vending of proprietary medicines, with any exclusively wholesale business, or with the sale by general retail dealers of the following articles: Alum, blue vitriol, borax, carbonate of ammonia, carbonate of soda, castor oil, copperas, Epsom salts, Glauber salts, glycerine, gum arabic, gum camphor, licorice, logwood, rolled sulphur, saltpetre, senna leaves, sublimed sulphur, water of ammonia, arsenate of lead, sodium arsenate, London purple, arsenious oxide, or Paris green in sealed packages distinctly labeled "arsenate of lead", "sodium arsenite", "London purple", "arsenious oxide", "arsenate calcium and arsenite of zinc" or "Paris green", as the case may be, "poison." Nor shall any dealer whose shop is more than two miles from a drug store be thus prevented from selling any commonly used medicine or poison which has been put up for such sale by a registered pharmacist.

MISSISSIPPI

Provided, that nothing in this act shall be construed to prevent . . . or in any manner interfere with, or to require a permit for the sale or offering for sale of patent or proprietary medicines; nor interfere with nor prevent the sale of commonly used household drugs by general stores; nor prevent the sale of such acids, poisons or chemicals as are regularly used in agriculture.

MISSOURI

Provided, however, that nothing in this section shall be so construed as to apply to the sale of patent and proprietary medicines, and in any locality where there is no licensed pharmacist or assistant pharmacist, the ordinary household remedies and such drugs or medicines as may be specified by the board of pharmacy shall be permitted to be sold by those engaged in the sale of general merchandise.

MONTANA

Provided, that nothing in this act shall interfere with . . . the business of merchants in towns where there is no regularly licensed pharmacist when selling drugs, medicines, pharmaceutical, or proprietary medicinal preparations in original and plainly labeled packages, as the public may require; provided also, that nothing herein shall be construed to prevent the sale of any patent or proprietary medicine in the original package, when plainly labeled, nor such non-medicinal articles as are usually sold by general merchants.

NEBRASKA

The preceding section shall not be construed to include . . . :
4. Persons who sell, offer or expose for sale patent or proprietary medicines, the sale of which is not in itself a violation of the law relating to intoxicating liquors.

The exemption provision of the Iowa Act closely resembles that of Nebraska.

NEVADA (See Arizona)

NEW HAMPSHIRE

This shall not prevent the sale of proprietary medicines except those proprietary medicines which consist of or contain barbitol and/or other compounds of the barbituric acid series, by whatever names called.

This chapter shall not prevent the sale by any dealer of the following named drugs, medicines and chemicals in original packages only which have been put up by or under the direction of a registered pharmacist of this or some other state: Compound licorice powder, Rochelle salts, sodium phosphate, extract of witch hazel, tincture of arnica, tincture of iodine, tincture of rhubarb, chloroform liniment, sweet spirit of nitre, aromatic spirits of ammonia, oxide of zinc ointment, essence of peppermint, essence of wintergreen, hydrogen peroxide, and camphor liniment, nor of pills or tablets of quinine sulphate, extract of cascara, cathartic compound, sodamint, sodamint and pepsin, and potassium chlorate.

This chapter shall not prevent the sale of the following: alum, blue vitriol, borax, camphor gum, copperas, Epsom salts, Glauber salts, castor oil, oil of turpentine, sulphur, cottonseed oil, salt-petre, household ammonia, flavoring extracts and unofficial chlorinated solutions.

NEW JERSEY

Nothing in this act shall be construed to apply to or in any manner interfere with . . . the making and vending of non-poisonous patent or proprietary medicines, nor with the sale of simple non-poisonous domestic remedies by retail dealers in rural districts.

NEW MEXICO

Under the conditions hereinafter imposed, merchants and storekeepers in towns, villages and camps, where there is no registered pharmacist, may and they are hereby authorized and permitted to sell at retail, patent or proprietary medicines, chemicals used in mining,

the reduction of ores and assaying, poisons for the destruction of insect and animal pests and predatory animals and common household drugs, but all sales of poisons shall be subject to the provisions of section 2378 (53-201) of the Codification of 1915.

NEW YORK

Store keepers may in accord with the rules sell medicine and poisons for a period not exceeding one year upon the payment of a fee of three dollars. The storekeeper's certificate is limited to the village or place where the storekeeper resides and may be limited to the sale of certain classes of poisons sold only in original packages and put up by a licensed pharmacist whose name and business address is displayed on the package.

NORTH CAROLINA (See Idaho)

NORTH DAKOTA

The exemption provision of the North Dakota Pharmacy Act is particularly interesting as the Board of Pharmacy of that State is vested with much greater discretionary powers than are usually met with in statutes of this kind. The Act states that "general dealers come under the provisions of this act so far as it relates to the keeping for sale and sale of proprietary medicines in original packages, and such simple household remedies as may from time to time be approved for such sale by the State Board of Pharmacy."

The Act also states that "the Board may issue permits to retail dealers to keep for sale and sell in original packages, in addition to the simple household remedies heretofore referred to, such other emergency medicines and poisons as may be deemed necessary and in the public interest, and which have been designated by the State Board of Pharmacy as saleable under such license. . . . The State Board of Pharmacy may likewise from time to time add to or eliminate from the approved list of simple household remedies, and may add to or eliminate from the approved list of emergency medicines and poisons, saleable under the license aforesaid, and notice of such alterations shall be given by publication in such manner as said Board may deem proper."

OHIO

The next two sections shall not apply to . . . the making or vending of patent or proprietary medicines by a retail dealer, the selling of copperas, borax, blue vitriol, saltpetre, sulphur, brimstone, licorice, sage, juniper berries, senna leaves, castor oil, sweet oil, spirits turpentine, glycerine, Glauber's salt, cream of tartar, bicarbonate of sodium, quinine, Rochelle salts, Epsom salts, alum, camphor gum, oil of cinnamon, oil of lemon, or prohibit a person from selling in the original packages paregoric, essence of peppermint, essence of cinnamon, essence of ginger, hive syrup, syrup of ipecac, tincture of arnica, syrup of tolu, syrup of squills, spirits of camphor, number six, sweet spirit of nitre, compound cathartic pills, quinine pills and other similar preparations when compounded by a legally registered pharmacist and put up in bottles or boxes bearing the label of such pharmacist or of a wholesale druggist, with the name of the article and directions for its use on each bottle or box.

OKLAHOMA

Provided that nothing in this Act shall be construed to prevent . . . or in any manner interfere with, or apply to the business of selling or offering for sale of patent or proprietary medicines; nor interfere with nor prevent the sale of the commonly used household drugs, provided such commonly used household drugs are offered for sale or sold in packages which have been put up for sale to consumers by pharmacists, manufacturing pharmacists, manufacturers or wholesale druggists, nor shall any of the provisions of this bill prohibit the selling direct to the consumers, any patent medicine or proprietary remedies, commonly used as household drugs nor shall this article interfere with the business of those merchants who keep or sell such poisons, acids and chemicals as are regularly used in agriculture, mining and the arts, when kept and sold for such purposes only in plainly sealed and labeled packages. Provided, further, that nothing in this Act shall in any manner interfere with the business of merchants in towns having less than three hundred inhabitants, in which there is no licensed pharmacy, or with country merchants, in selling or vending such medicines, compounds and chemicals as are required by the general public.

OREGON

Provided, that nothing in this act shall apply to . . . the manufacture or sale of proprietary medicines or patent medicines, except as hereinafter provided, nor to the sale of any household remedies and medicines, by shopkeepers not druggists, in the original packages, when properly labeled, except as hereinafter provided.

PENNSYLVANIA

Nothing in this act of Assembly shall be construed so as to . . . prevent the sale or manufacture of proprietary medicines; nor prevent storekeepers from dealing in and selling commonly used household drugs or proprietary medicines when the same are offered for sale or sold in original packages, except when administered in single doses on the premises, which have been put up ready for sale to consumers by pharmacists, manufacturing pharmacists, manufacturers of proprietary medicines, wholesale grocers, or wholesale druggists, under qualified supervision: Provided, however, that the proprietary medicines or household drugs sold or offered for sale shall not contain any opium, coca leaves, chloral, or any of the salts, derivatives or compounds thereof in any quantity whatsoever; Provided, also, that remedial agencies that are administered hypodermically, intramuscularly or intravenously, and all medicinal substances containing barbituric acid or its compounds, and biologicals (except those biologicals distributed to State and county health officials), and medicines containing substances of glandular origin (except intestinal enzymes and all liver products), shall be sold only by registered pharmacists or assistant pharmacists employed by or conducting a registered pharmacy. Any person violating the provisions of this section shall be guilty of a misdemeanor, and, upon conviction, shall be sentenced to pay a fine of not less than fifty dollars (\$50.00) nor more than five hundred (\$500.00), or imprisonment for not more than one year, or either or both, in the discretion of the court.

SOUTH CAROLINA

Sections 5168 to 5191 shall not be construed to prevent merchants or shopkeepers from vending or exposing for sale in original packages medicines already prepared for use.

Sections 5168 to 5191 shall not prohibit country merchants from handling lye, canned goods and drugs as they now handle.

SOUTH DAKOTA

Provided, that nothing in this act shall be construed to prevent the sale of any patent or proprietary medicines in the original packages by persons other than pharmacists.

TENNESSEE

Provided, that nothing in this section shall apply to or in any manner interfere with . . . the selling by any store of copperas, camphor, borax, blue stone, saltpeter, brimstone, licorice, sage, quinine, juniper berries, senna leaves, castor oil, spirit of turpentine, sweet oil, glycerine, Glauber salts, Epsom salts, cream of tartar, bicarbonate of sodium, and of such domestic remedies as essence of peppermint, essence of cinnamon, hive syrup, syrup of ipecac, tincture of arnica, syrup of tolu, syrup of squills, spirits of camphor, number six, sweet spirits of niter, compound cathartic pills, and other similar preparations, and carbo'ic acid and tincture of iodine (as below), when compounded by a regular pharmacist and put up in boxes and bottles bearing the label of such pharmacist or wholesale druggist, with the name of the article and the directions for its use on each box or bottle. Nothing in this chapter shall be construed to prevent the sale of patent medicine or proprietary medicine or preparations by any merchant, druggist or dealer.

TEXAS

It shall be unlawful for any person who is not a registered pharmacist under the provisions of this act, or who is not under the direct supervision of one so registered to compound, mix or manufacture, or sell or distribute at retail to the consumer any drugs or medicines, except in original packages . . . provided that nothing contained in this Act shall be construed to prevent . . . the sale of patent or proprietary medicines in original packages only and insecticides and fungicides, and harmless chemicals used in the arts, when properly labeled; nor to prevent licensed physicians, dentists, veterinarians and chiropodists from compounding, manufacturing and selling any medicines of their own formula.

UTAH (See Alabama)

VERMONT

This chapter shall not apply to . . . the manufacture or sale of patent or proprietary medicines, or to the sale other than on prescriptions of drugs, medicines and poisons.

VIRGINIA

. In rural districts and in towns having a population of one thousand or less . . . merchants and retail dealers may sell the ordinary non-poisonous domestic remedies in original packages put up by manu-

facturers and wholesale dealers, proprietary medicines, copperas, cream of tartar, calomel, Paris green, bluestone, carbolic acid, London purple, sweet spirits nitre, paregoric, tincture of iron and quinine, in original packages which conform to the requirements of this chapter, and such other medicines as the board of pharmacy may permit.

WASHINGTON

Provided, that nothing in this act shall . . . prevent shopkeepers, itinerant vendors, peddlers or salesmen from dealing in and selling the commonly used medicines, or patent and proprietary medicines, if such medicines are sold in the original packages of the manufacturer, or in packages put up by a registered pharmacist in the manner provided by the state board of pharmacy.

WEST VIRGINIA

The provisions of section fourteen shall have no application to the sale of patent or proprietary medicines nor to such ordinary drugs in original retail packages, extracts or dyestuffs as are usually sold in a country or city store.

WISCONSIN

This shall not interfere with . . . the sale of proprietary medicines in sealed packages, labeled to comply with the federal pure food and drug law, with directions for using, and the name and location of the manufacture, nor with the sale of alum, ammonia, borax, bay rum, bicarbonate of soda, cream of tartar, concentrated lye, olive oil, sal ammoniac, sal soda, sulphur, copperas, Epsom salts, Glauber salts, castor oil, glycerine, senna leaves, indigo, blue vitriol, turpentine, wood alcohol and denatured alcohol.

WYOMING

Provided, that nothing in this chapter shall apply to, or in any way interfere with . . . the making and vending of patent or proprietary medicines.

A study of the foregoing exemption provisions will show that they are extremely broad, ambiguous in their language, and very difficult of interpretation. Such terms as "grocers drugs", "such drugs as have heretofore been handled by general merchants", "commonly used household and domestic remedies", and "simple household remedies", are not defined and thus it is virtually impossible to state what is the exact scope and limitations of these terms.

The situation is so confused and confounded that the Committee feels that to bring some sense of order to this phase of pharmaceutical legislation, the exemption provisions must be entirely revamped and reconstructed and that the

controlling principle should be public health and that there should be no wide deference to special commercial interests.

It is apparent from a study of the exemption provisions that certain trade groups have been successful in leaving their imprint upon pharmaceutical legislation. While the Committee has no quarrel with the commercial ambitions of any group, the Committee is unreservedly opposed to permitting commercial groups to fashion the pattern of pharmaceutical legislation.

MORE ADEQUATE CONTROL OF DISPENSING BY PHYSICIANS, ETC.

The Committee also feels that the time has come to give real study and attention to the exemptions in pharmacy acts in favor of physicians, dentists, and veterinarians. Of all the professional groups seeking to engage in any phase of pharmacy, it is highly probable that the dispensing doctor, the dispensing dentist, and the dispensing veterinarian are the least qualified for this work.

If it has been found in the public interest to require pharmacies to operate under annual permits and to require pharmacists to satisfy the state as to their competency when pharmacists are admittedly the best qualified persons to deal in drugs and medicines, then on what theory do we exempt physicians, dentists, and veterinarians whose training is tragically defective so far as pharmacy is concerned? If it has been found desirable in the public interest to require manufacturers of drugs, medicines, cosmetics, et cetera, to operate under annual permits issued by the board of pharmacy, and to require all manufacturing operations to be in charge of a registered pharmacist or some other person whose technical and scientific training and experience have been approved by the board of pharmacy, then again, on what theory do we permit the promiscuous dispensing of these same commodities on the part of physicians, dentists, and veterinarians, without at the same time demanding of them some evidence of their qualifications for this work?

Of course, it may be said that physicians, dentists, and veterinarians have had some training in drugs and medicines, but this can be answered with the fact that the pharmacist has had much greater training in drugs and medicines and yet, he is required to operate under permit and to satisfy the state as to his qualifications.

It can be said too, that physicians, dentists, and veterinarians have had training in prescription writing and dispensing but this argument can be answered with the fact that the pharmacist has had an infinitely greater amount of training in prescription writing and dispensing. In other words, it seems to the Committee that there is no justification for permitting physicians, dentists and veterinarians an unlimited right to practice pharmacy in the face of their universally admitted incompetence, and in the face of the strict rules and regulations surrounding the practice of pharmacy on the part of pharmacists themselves.

With these thoughts in mind, the Committee believes that physicians, dentists, and veterinarians who desire to compound and dispense their own medicines, should be required to operate under annual permits issued by the board of pharmacy and that these permits should not be issued except in those cases where the board is satisfied as to the competency of the applicant. The Committee, therefore, believes that in any modernized pharmacy act, this situation should be faced and legislation so drawn as to bring the dispensing doctor, dispensing dentist and dispensing veterinarian under reasonably satisfactory regulation and control, and that the best means of securing this control would be through requiring them to obtain permits issued by the board of pharmacy.

The Committee has not had time to formulate a bill which would bring this about but it is hoped to have such a provision in the tentative draft of the act to be ready sometime this fall.

(Some states, notably Kansas, have seen the necessity for bringing drugs, medicines and chemicals dispensed by physicians, under the provisions of the Pharmacy Act and have provided that samples of such drugs, medicines and chemicals may be obtained from such physicians for analysis to determine their compliance with legal standards. See Kansas under the exemption provisions above.)

As remarked above, the exemption provisions are extremely difficult and many questions of public policy must be considered in dealing with them. Matters of public convenience require attention, but it is believed that the demands of public health should dominate and control the situation. With this thought in mind, the Committee submits the following drafts which might be considered satisfactory in dealing with this phase of our problem. The Committee has not

decided just what its position would be with respect to any of these, but merely submits them for study and consideration.

SUGGESTED EXEMPTION PROVISIONS

I

In order that the public health may be adequately protected and that the distribution of drugs and medicines might be properly supervised and controlled, the board of pharmacy is hereby authorized to issue permits to general dealers in rural communities, under which said general dealers may handle such emergency drugs and commonly used household or domestic remedies, as the board of pharmacy may from time to time prescribe.

A "rural community" is hereby declared to be any place three miles or more distant from the nearest pharmacy or drug store.

II.

Nothing in this act shall be construed to prevent the sale of non-poisonous, patent medicines, and the sale by general dealers in rural communities of such household drugs and medicines as the board of pharmacy may from time to time prescribe. The board of pharmacy is hereby authorized to issue permits to such general dealers as may apply for them.

III.

All dealers in non-poisonous patent medicines, and all general dealers handling household drugs and medicines, shall operate under permits issued by the board of pharmacy, which permits shall be renewed annually. The board of pharmacy is hereby authorized to designate those medicinal compounds and preparations to be known as household drugs and medicines.

IV.

Dealers other than pharmacists may handle non-poisonous patent medicines. General dealers may also handle in the manufacturers' or wholesale distributors' original package, Epsom salt, Rochelle salt, boric acid, powdered alum, powdered sulphur, cream of tartar, glycerine, sweet oil, bicarbonate of soda, senna leaves, and such other similar household drugs and medicines as the board of pharmacy may from time to time prescribe.

The Committee feels that the subject matter of this report, including the definitions of "pharmacy" and the exemptions in the state pharmacy acts, is sufficiently important to warrant close critical study and for this reason hopes that the report will receive the attention which it deserves and that its various proposals may be the subject of full and complete deliberation.

In order that the work of the Committee might receive the most competent study, it is suggested that the president of the American Pharmaceutical Association name the secretary

of the board of pharmacy of every state to serve as an auxiliary member of the Committee. This will give the Committee the benefit of the criticism and suggestions of the men actively engaged in the administration of pharmacy laws, and who may be confidently looked to for valuable aid and cooperation.

It will be the purpose of the Committee to immediately furnish these auxiliary members with a copy of this report and also a copy of the tentative draft of a modern pharmacy law which the Committee hopes to have ready early this fall. It is believed that the procedure suggested here will be of inestimable value to the Committee and to the important work which it has undertaken.

THE SCIENCE LIBRARY
SCIENCE MUSEUM, SOUTH KENSINGTON
LONDON, S. W. 7

8th October 1938.

Sir

I am directed to inform you that the President of the Board of Education has much pleasure in accepting the publications set out herein which you have been so good as to present to the National Collections in the Science Museum Library. I am to convey to you his best thanks for the gift.

I have the honour to be, Sir,

Your obedient Servant,

E. E. B. Mackintosh,
Director.

The Editor

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Summary of Proceedings of the 1938 Meeting of the American Association of Colleges of Pharmacy*

The thirty-ninth annual meeting of the American Association of Colleges of Pharmacy was held at the Nicollet Hotel, Minneapolis, August 22 and 23, 1938. One hundred and forty-nine representatives from 50 member-colleges were in attendance. This was perhaps the largest number of colleges to be represented at a meeting in the history of the Association. At least seven other colleges had representatives in attendance at some of the sessions.

The invocation was given by Dean Gordon L. Curry of the Louisville College of Pharmacy.

Dean Beard moved that the Association send a telegram of greetings and sympathy to Dr. Crockett who was president last year and who has been ill throughout the year. The motion was seconded by Dean Hayman, put to vote and carried and the Secretary directed to send the telegram.

President Muldoon made the following appointments: Committee on Resolutions: Howard C. Newton, Chairman, Glenn L. Jenkins, William A. Jarrett, A. John Schwarz, H. Evert Kendig; Committee on Nominations: Justin L. Powers, Chairman, Joseph B. Burt, Eldin V. Lynn; Auditing Committee: Ivor Griffith, Chairman, Ralph E. Terry, John J. McCloskey.

*This summary is printed in order that the results of the year's work and the happenings at the convention may be made available at once to the pharmaceutical public. Details of the work of the Association, including that of its committees and conferences, will appear later in this and future issues.

Address of the President

President Muldoon pointed out some reasons why deans must play an important part in Association work but showed how other staff members may also become a force in the organization. He advised the surrender of all accrediting work to the American Council on Pharmaceutical Education which the American Association of Colleges of Pharmacy helped to

create and whose standards it has approved. He called attention to the necessity for member colleges having collegiate status in university groups.

He spoke highly of the *American Journal of Pharmaceutical Education*, and commended its Editor for showing the desirability of such a publication and for the energy and skill that made it a reality.

He directed attention to the influence in pharmaceutical education that comes from district meetings of boards and colleges.

The future work of the Association, he said, needs careful consideration. Retail pharmacy must be kept in mind and the Association must be on guard against pressure for more instead of better pharmacists. A study of teaching is much needed; we must keep pace with educational thought and practice. Teachers are responsible for much more than intellectual advancement of those they teach. Pharmacy must be integrated into public health programs; there is other work to be done and numerous studies to be made in order that pharmacy may continue to command the respect of other professions and be worthy of public support.

President Muldoon's address was received with appreciation and his recommendations referred to the Committee on Resolutions. The address itself appears elsewhere in this *Journal*.

Report of the Secretary-Treasurer

Secretary Cooper reported a membership of 55 colleges with *none* in arrears for dues. The balance in the checking account is \$2,439.74. The special fund includes \$2,715.28 in a savings account and government bonds having a par value of \$5,000.00, making a total in this fund of \$7,715.28. This fund is being drawn upon to pay the expense of inspection (of these colleges that paid into it) by the American Council on Pharmaceutical Education.

The report also submitted figures concerning the cost of publication of the *American Journal of Pharmaceutical Education*.

The report which appears in this issue, was accepted and the auditing committee, Dean Ivor Griffith, Chairman, found the accounts to be correct.

Report of the Executive Committee

Dean Little, Chairman of the Executive Committee, submitted statistics concerning beginning classes and graduating classes. Entering students for the college year 1937-38 numbered 2,262, an increase over 1936-37 of about 1.3 per cent. About 33 per cent of these had had previous college training.

Following is a summary of information concerning those graduated from member-colleges:

Graduates receiving the Bachelor of Science Degree.....	1,169
Advanced degrees	31
Pharmaceutical Chemist	4
Master of Science in Pharmacy.....	17
Doctor of Science	1
Doctor of Philosophy	9
Honorary degrees	13
Master of Science	2
Doctor of Pharmacy	4
Doctor of Science	5
Doctor of Laws	1
Doctor of Philosophy	1

Dean Little discussed changes in the convention program, the proposed amendments to the Constitution and By-laws, the American Council on Pharmaceutical Education, problems which the Association should undertake, the *American Journal on Pharmaceutical Education*, state aid for pharmaceutical education, the work of committees, the Subsection on Pharmacy of the American Association for the Advancement of Science, the American Pharmaceutical Association Committee on Modernization of Pharmacy Laws and the question of pharmacists for the Medical Administrative Corps of the United States Army.

The report was accepted. The following recommendations which were included in the report were adopted:

1. That member-colleges be not permitted to award the doctor of philosophy degree as an honorary degree and that our Secretary be instructed to write the dean of each Association college informing him of this action.

2. That Article VII of our Constitution be amended to read as follows: "Executive Committee. The Executive Committee shall consist of the Chairman, the President, the Secretary-Treasurer, the Editor of the *American Journal of Pharmaceutical Education*, the immediate Past-President of the Association and four accredited delegates two of whom shall be elected each year, and who shall hold office for two years."

3. That an honorarium of \$100 be given to the Editor of the *American Journal of Pharmaceutical Education* and that his convention expenses be paid.

4. That the sum of \$360.00 a year be appropriated to furnish the Editor with part-time secretarial help, providing the finances of our Association make such an appropriation possible and feasible.

5. That papers presented at the convention shall become the property of the Association and be given to representatives of drug and other journals only by the Secretary under the direction of the Executive Committee.

Report of the Committee on Curriculum and Teaching Methods

Dr. Burlage, Chairman, reported that inasmuch as the subject of entrance requirements was referred to the Committee, upon recommendation based on Dean Jordan's paper on that subject last year, the year's work had been limited to that task. Catalogues of colleges were studied and a summary of present requirements included in the report. The Committee made definite recommendations for entrance requirements. The report was accepted and the recommendation referred to the Committee on Resolutions. An amendment to the motion to refer was adopted to the effect that the report be distributed to member-colleges to be studied for a year before action is taken. (The Committee on Resolutions in considering the action taken expressed agreement and recommended that action be deferred for at least a year.)

Report of the Delegate to the American Council on Education

Dr. Lyman spoke briefly of the function of the Council, expressed the belief that the *Educational Record*, official publication of the Council, should be in the library of every college of pharmacy and quoted some statements from a speaker at the Council's annual meeting about what makes a "good meeting": Briefly, a good attendance, a good program with discussions that continue when sessions come to a close, and not least, perhaps, meeting old friends.

The report was received with appreciation.

Report of the Committee on Relation of Boards and Colleges

Dean Kendig, General Chairman, directed attention to the development that has taken place in the joint meetings of boards and colleges. Resolutions of national significance that were adopted in the six districts where meetings were held

were made a part of the report. The report was accepted and the recommendation referred to the Committee on Resolutions.

Report of the Committee on Libraries

Dr. Lee, Chairman, submitted an alphabetical list of pharmaceutical journals with acceptable abbreviations for them. The Committee has the following projects under way: The preparation of a minimum list of journals for teaching and research; minimum lists of reference books on botany and pharmacognosy, on pharmacy and on pharmaceutical chemistry.

The report was accepted.

Report of the Committee on Problems and Plans

Dean Lyman, Chairman, stated that three major problems are before the Committee: researches on the deterioration of drug products; how to find a finer type of student, intellectually and spiritually; the advisability of assembling the undergraduate needs and evaluating the research facilities of colleges of the Association. The report commented on these projects, particularly some of the difficulties involved.

Among the minor projects, one has been completed this year, and was presented as a part of the report. This project was entitled, "A Survey of the Basic Biological Sciences in Colleges of Pharmacy" by Dr. R. A. Deno. Another which is nearing completion is "A Study of the Character of the Four-Year College Student As Compared to Short Course Students" by Dr. H. M. Burlage.

The Committee is also concerned with developing a high class program in the Subsection on Pharmacy of the American Association for the Advancement of Science.

The report was accepted.

Report of the Committee on Activities of Students and Alumni

Dr. Ireland, Chairman, in his report directed attention to some of the more unusual student activities, and commended certain organizations that seem to be leaders in activities in schools where they exist.

The report was adopted and the recommendations referred to the Committee on Resolutions.

Report of the Editor of the American Journal of Pharmaceutical Education

Dean Lyman directed attention to the fact that payment of annual dues to the Association entitles each member-college to one copy of the *Journal*. He expressed appreciation of the cooperative spirit of many deans and amazement that a number of member-colleges are not contributing a single subscription.

He reported that much more material is received than can possibly be published, if we stay within the cost allotment made by the Publication Board.

The report was accepted.

Report of the Committee on Food and Drug Legislation

Dean Jordan, Chairman, directed attention to the publication of a summary of the work of the Committee last year, and related very briefly the history of "The Federal Food, Drug and Cosmetic Act". The Committee is of the opinion that its efforts and the resolutions passed at the Washington meeting were effective.

The report pointed out that the work of the Association is not finished. Every teacher in colleges of pharmacy should see that students become familiar with the provisions of the law; and member-colleges should take a leading part in bringing the food and drug laws of their respective states into unison with the new federal act.

The report was received with the thanks of the Association.

Report of the Committee on Predictive and Achievement Tests

Dr. Klemme, Chairman, reported that in conjunction with a subcommittee of the Committee on Measurement and Guidance of the American Council on Education, plans for a five-year study on achievement tests in pharmacy had been completed and had been approved by the American Council on Education. Efforts to secure funds to finance the project had failed because the foundations approached were interested primarily in general education and not professional. Work of the Committee will of necessity be limited to examination

of existing aptitude tests and the possibility of their application to beginning students in pharmacy.

The report was received and the following recommendations contained in it were adopted:

1. That the Committee on Predictive and Achievement Tests assemble a representative sampling of available aptitude and intelligence tests which might be applicable for administration to entering pharmacy students and that the cost of such procedure be borne by the Association. This cost should not exceed \$50.00.
2. That the Committee study the aptitude and intelligence tests thus assembled and be prepared to recommend at the next meeting of the Association certain tests for use in schools of the Association.
3. That the Committee examine thoroughly the cost of administering such tests and be prepared to state definitely, at the next meeting of the Association, what the cost would be to each school participating.

Report of the Committee on Professional Relations

Professor Schicks, Chairman, reported a considerable increase in inter-professional work. Comments were made on some special work done and replies from a questionnaire concerning work being done in 29 states were presented in tabulated form.

The report was accepted.

Report of the Committee on Revision of the Constitution and By-Laws

Dean DuMez, Chairman, submitted the following amendments to the Constitution:

1. Article 3, Paragraph 2. Strike out all of Paragraph 2 and substitute therefor, "The title, college of pharmacy, shall be interpreted as designating an incorporated college of pharmacy; or a school, college or department of pharmacy in a state university, or in a regularly incorporated or legally empowered educational institution."
2. Article 10. In paragraph 1, line 1, add after the word "business", "except the election of members".

The amendments were adopted.

The Committee also recommended the following amendments to the By-Laws:

Article 1. Delete paragraph 4 which reads as follows: "All member-colleges shall be visited at least once in three years by representatives appointed by the Executive Committee".

Article 7. Strike out all subject matter from items 1 to 12 inclusive and substitute therefor the standards adopted by the American Council on Pharmaceutical Education.

The Chairman of the Executive Committee submitted these proposed changes to the deans of member-colleges more than forty days prior to the annual meeting.

In order that all staff members might have ample time to study the proposed amendments, the motion to postpone vote on them until next year was carried.

The report of the Committee was accepted.

Report of Other Committees and Representatives

Dean DuMez, Chairman of the Committee on Educational and Membership Standards, made a brief verbal report; Dr. Heber W. Youngkin reported on Biological Abstracts; Dean J. Lester Hayman reported for the delegates to the National Drug Trade Conference; and Dr. A. John Schwarz gave a report on the program of the American Conference of Pharmaceutical Research.

Report of the Committee on Resolutions

Dean Newton, Chairman of the Committee, made the report, presenting first the following resolution:

That the Association records its appreciation of the accomplishments of its President, Dean Hugh C. Muldoon, during the past year, of his excellent address which analyzes so well the organization's needs and of his pleasing efficiency in presiding over the meetings, all of which have contributed to the progress of the work of the Association.

The resolution was adopted.

From the President's address:

1. That as an experiment for one year, we combine the four teachers' conferences into a single group which will function this year under the chairmanship of the teacher chosen today to act as chairman of the conference on pharmacy. The secretary of the chemistry teachers' conference will act as secretary for the combined groups. These officers, together with the other newly elected officers of all the conferences, will serve as a committee to arrange for next year's meeting, a program of general interest. If this plan is adopted and is successful, arrangements for its continuance can be made at the 1939 meeting. If it fails, other action can then be taken.

Because of the great enthusiasm and splendid attendance of this year's conferences, doubtless due in part to President Muldoon's inspiring leadership, the Committee recommended that action on the proposed change be deferred until next year.

The recommendation of the Committee was adopted.

2. That the By-Laws be so amended as to require after January 1, 1942, that no new college will be admitted to membership in the American Association of Colleges of Pharmacy, unless it has been accredited previously by the American Conference on Pharmaceutical Education.

The Committee approved this recommendation and it was adopted.

3. That, where a school of pharmacy has been subordinated to some other division of the university, the Executive Committee be directed to use an increased degree of aggressiveness in endeavoring to correct the situation wherever such a merger may have already taken place and, likewise, wherever it may be learned in advance that an action of this sort is contemplated.

The Committee approved this recommendation, and it was adopted.

4. That the Secretary of the Association be directed to bring such action (recommendation 3) to the attention of the American Council on Pharmaceutical Education.

The Committee approved this recommendation and it was adopted.

5. That the Executive Committee be empowered to provide the Editor of the American Journal of Pharmaceutical Education with such clerical assistance as he may need in connection with the publication of the Journal, the cost of such help during the coming year to be not greater than \$360.00.

The Committee approved this recommendation and it was adopted.

6. That for each district (boards and colleges) which publishes its proceedings, and which asks for a contribution, the Association shall make an allowance of \$25.00 per year to help meet publication costs.

The Committee approved this idea but recommended that the allowance be one-half the cost of the publication of the proceedings, the total not to exceed \$25.00 per year for any one district. The modified recommendation was adopted.

From the Committee on Curriculum and Teaching Methods:

That the following entrance requirements be adopted for admission to the first year class in pharmacy:

1. The applicant shall be seventeen years of age; this age limit shall be lowered *only* under exceptional circumstances.

2. The applicant must have completed a four-year course of not less than fifteen units in a secondary school approved by a recognized accrediting agency. (This requirement has been established by the American Council on Pharmaceutical Education.)

3. Of the fifteen units required the following are prescribed:

a. English, four units of which at least half shall be composition and grammar.

- b. Mathematics, two units.
- c. Foreign language (Latin, German, or French), two units.
- d. Natural science, two units, one unit of which shall be physics.
- 4. Units in vocational subjects with the exception of typing shall not be accepted.
- 5. Until suitable predictive tests are available as a means of selecting students for entering pharmacy, only an applicant ranking scholastically in the upper half of a class graduating from high school shall be considered eligible for admission.

The Committee on Resolutions recognized the thoughtful work involved in this report on a most important subject and in accord with Dean Jordan's motion which was attached, recommended that action be deferred for at least one year to give time for study. The amended recommendation was adopted.

From the Committee on Relation of Boards and Colleges:

That the schools of pharmacy and the boards of pharmacy of the states of Oregon, Washington, Idaho, and Montana make arrangements for a meeting at a suitable time and place next year; that they endeavor to obtain attendance from other states concerned and that out of their experience, a report be made to the General Chairman of the Committee, which may serve as a basis for additional recommendations next year.

The Committee on Resolutions approved this recommendation and it was adopted.

From the Report of the Committee on Activities of Students and Alumni:

That the Association confer with Mr. Harry Anslinger, Director of the Federal Bureau of Narcotics, to obtain the services of Mr. Joseph M. Bransky in delivering his illustrated lectures at the colleges.

The Committee on Resolutions felt that this was a matter to be decided by the individual colleges rather than by the Association as a whole, and recommended that it be not adopted and the vote was to this effect.

Finally the Committee on Resolutions offered the following resolution:

That the Association records its appreciation of the work of all those who have participated in the programs of these meetings and, thereby, have contributed to the progress of pharmaceutical education.

The resolution was adopted.

The report of the Committee on Resolutions, signed by all members, Dr. Jenkins, Dean Jarrett, Dean Kendig, Dr. Schwarz, and Dean Newton, Chairman, was adopted.

Panel Discussion

The second session was given up entirely to a panel discussion under the leadership of Dean Serles on the subject, "How Would the Development of a System of Socialized Medicine as Recommended by Miss Roche Affect the Future of Pharmacy?" The following papers were presented:

Retail Pharmacy (with reference to the number of outlets now established), Leslie M. Ohmart.

Curricula of Colleges of Pharmacy, Glenn L. Jenkins.

Pharmaceutical Research, L. Wait Rising.

Pharmaceutical Legislation, Ralph E. Terry.

Public Health, Earl R. Serles.

The Scope and Cost of Professional Service, Edward D. Davy.

Following the presentation of the papers, there was general discussion. When the papers are published in a later issue an abstract of the discussion will appear.

American Association for the Advancement of Science

Dean Rudd announced that the Program Committee for the Subsection on Pharmacy of the American Association for the Advancement of Science consists of Dr. Jenkins, Dean Spease and himself, Chairman. The next meeting, December, 1938, is to be at Richmond and the Program Committee is arranging a symposium on the glycols. The president of the American Chemical Society will be one of the speakers.

Contribution to the American Council on Pharmaceutical Education

The Association authorized the payment of \$200.00 toward the work of the American Council on Pharmaceutical Education.

Election of New Members

Five colleges were elected to membership in the Association. The membership of Ferris Institute College of Pharmacy at Big Rapids, Michigan, becomes effective at once. Membership of the other four, Columbia University, College of Pharmacy, New York; University of Buffalo School of Pharmacy, Buffalo; Long Island University College of Pharmacy (Brooklyn College of Pharmacy), Brooklyn; and Fordham University College of Pharmacy, New York, is to become effective when they have graduated their last class from a course of less than four years' duration.

Annual Dinner

At the annual dinner at which members of the National Association of Boards of Pharmacy were guests of the Association of Colleges, President Muldoon acted as toastmaster. Officers of the two Associations were presented.

Dean Rogers presented the guest speaker, Dr. T. R. McConnell, Professor of Education and Director of the Committee on Educational Research of the University of Minnesota, who spoke on "The Relation of Professional and General Education". The address appears elsewhere in this *Journal*.

Election of Officers and Committee Members

President: Earl R. Serles, Brookings, South Dakota.

Vice-President: James M. Dille, Seattle, Washington.

Secretary-Treasurer: Zada M. Cooper, Iowa City, Iowa.

Chairman of the Executive Committee: Ernest Little, Newark, New Jersey.

Member of the Executive Committee to fill the unexpired term of Dean Lyman who, by virtue of the amendment to the Constitution, as Editor of the *American Journal of Pharmaceutical Education* is a member: J. Grover Beard, Chapel Hill, North Carolina.

Members of the Executive Committee for two-year terms: Andrew G. DuMez, Baltimore, Maryland; Glenn L. Jenkins, Minneapolis, Minnesota.

Member of the Syllabus Committee for a seven-year term: Henry M. Burlage, Chapel Hill, North Carolina.

Member of the Syllabus Committee for the unexpired term of Dr. Langenhan (resigned): Howard C. Newton, Boston, Massachusetts.

President Gaudin Speaks

The Very Reverend Harold A. Gaudin, President of Loyola University of the South, was present at the last session and addressed the convention briefly, commending its members for the intelligence and seriousness with which they went about their work.

Student Membership in the American Pharmaceutical Association

The advantage of joining the American Pharmaceutical Association while still students in college was discussed at some length. A motion was adopted to the effect that "we solicit greater interest in the American Pharmaceutical Association on the part of our undergraduates and urge them to become members of the American Pharmaceutical Association".

Appreciation of President Byrd's Address

On motion by Dean Wilson the Association extended a vote of appreciation to President Byrd for his address before the joint session.

* * *

*Joint Session of the American Pharmaceutical Association,
The American Association of Colleges of Pharmacy and
the National Association of Boards of Pharmacy*

Report of the Fairchild Scholarship Committee

Dr. Eberle, Chairman, presented the report. Twenty-five candidates, representing seventeen schools, took the examination. The winning candidate was Arthur W. Steers, a 1938 graduate of the University of Washington College of Pharmacy.

The report was accepted.

Report of the Pharmaceutical Syllabus Committee

Dr. Burlage, Chairman, reported that twenty-six subcommittees have been formed and the personnel of these groups is given in the report. All are at work; fifteen final reports and outlines are already in.

The report was received.

Report of the American Council on Pharmaceutical Education

Dean DuMez, Secretary-Treasurer, presented a report of the year's activities. The work of inspection is progressing satisfactorily and, with continued cooperation, the goal which the Council has set, namely, publication of a roll of accredited colleges by September 1, 1939, will be accomplished.

The report was received.

*Report of the Committee on Status of Pharmacists in the
Government Service*

Dean Kendig, Chairman of all three groups, reported that the Committee had made steady progress. He gave some statistics relative to the second examination given for the Medical Administrative Corps and directed attention to a third one to be given in November, 1938.

The report was accepted.

Report of the Committee on Degrees

Dean Jordan, Chairman for the American Association of Colleges of Pharmacy, prefaced the reading of the report with the statement that it was from the college members of the Committee. He reported that the Committee had followed up the work of the previous year and had found great interest in the subject of degrees. All members of the Joint Committee had seen the replies from the deans, which indicate that colleges of pharmacy are not ready to accept a professional degree *at this time*. In accordance with this conclusion, the Committee recommended that the discussion of the subject before the joint session be discontinued for the present and that the Committees be discharged by the bodies that created them.

The report was accepted.

Report of the Committee on the Modernization of Pharmacy Laws

Dr. Swain, Chairman, reported that the Committee hopes to be able to submit a tentative draft of a modernized pharmacy act sometime this fall.

The report pointed out that, in attempting to rationalize pharmaceutical legislation, it is well to keep in mind the sweeping exemptions to present laws. It is also true that only a few laws attempt to define drugs, medicines, poisons or even pharmacy. Definitions of the word "pharmacy" in the various state laws were quoted. The Committee submitted a definition which, it believes, is a modern interpretation.

The question of minimum equipment for stores and permits for manufacture were discussed.

Exempt provisions were discussed and quotations from the laws of the states given. Study of them indicates their breadth, ambiguity and the difficulty of interpretation.

The Committee believes that physicians, dentists and veterinarians who desire to dispense should be required to operate under permits and hopes to incorporate such a provision in the tentative draft.

The Committee submitted several exemption provisions for study and consideration.

The report was accepted.

Address of President Harry C. Byrd

Dr. Byrd, President of the University of Maryland, addressed the associated bodies on "Public Support of Professional Education". The address is printed elsewhere in this *Journal*.

Conference of Teachers of Pharmacy

Dr. Rising presided and the following papers were presented:

"Teaching of a Technician's Course for a Pharmacist," D. B. R. Johnson.

"The Use of the Library in Undergraduate Instruction," Edward J. Ireland.

"The Use of the Library in Undergraduate Instruction," William A. Jarrett.

"An Outline of a Course in Dispensing," Howard C. Newton.

"How Pharmacy Journals Could Help the Teachers of Pharmacy," Charles O. Lee.

"Observations on Pharmaceutical Arithmetic Problems, Students' and State Board Examinations," Carroll B. Gustafson.

The following officers were elected for the ensuing year:

Chairman, Dean Elmer L. Hammond; Vice-chairman, Dean D. B. R. Johnson; Secretary, Dean William A. Jarrett.

Conference of Teachers of Chemistry

Dr. Justin L. Powers presided and the following papers were presented:

"Significance of Correlations Between Predictive and Achievement Tests," Charles H. Rogers and Marjorie E. Moore.

"The Objectives of Quantitative Analysis in the Pharmaceutical Curriculum," Arthur E. James.

"Qualifications of One Prepared to Teach Pharmaceutical Chemistry," Lawrence H. Baldinger.

"An Attempt to Provide for Individual Differences in Analytical Chemistry," Ray S. Kelley.

"Simple Experiments to Impress Students," Charles W. Bauer.

"Chemotherapy as a Part of the Course in New and Non-Official Remedies," Abraham Taub.

The following officers were elected for the ensuing year:

Chairman, Professor Gordon A. Bergy; Vice-Chairman, Dr. H. George DeKay; Secretary, Dr. F. Scott Bukey.

Conference of Teachers of Pharmacognosy and Pharmacology

Dr. Goodrich presided. Minutes of the New York meeting were read and approved.

Papers on "Teaching of the Laboratory Course in Pharmacognosy" were presented by L. K. Darbaker, Ralph D.

Bienfang, Heber W. Youngken and Frank J. Slama. General discussion followed the reading of the papers.

Papers on "Teaching of the Laboratory Course in Pharmacology" were presented by B. V. Christensen, James M. Dille, Arno Viehoever. General discussion followed.

A paper, "Demonstration of Cardiac Drugs," was presented by Lovell D. Hiner.

The following resolution was adopted:

That the type of program introduced this year be continued and, if pharmacology and pharmacognosy are discussed, the order of discussion be reversed.

The following officers were elected for the ensuing year:

Chairman, Dr. Marin S. Dunn; Secretary, Professor J. Hampton Hoch.

Conference of Teachers of Pharmaceutical Economics

Dr. Clark presided and the following papers were presented:

"Teaching the Commercial Aspects of Endocrines," William H. Stoner.

"Teaching Salesmanship," Joseph H. Goodness.

"Teacher, Study Your Market," Ralph W. Clark.

"Commercial Problems of Professional Pharmacy," Frederick D. Lascoff.

"Commercial Ethics," Roland T. Lakey.

"Business Training for the Pharmacy Student from the Retailer's Point of View," Nathan Zonies.

The following officers were elected for the ensuing year:

Chairman, Professor Frederick D. Lascoff; Secretary, Dr. B. Olive Cole.

With this issue *The American Journal of Pharmaceutical Education* completes its second volume and the second year of its life. It is now time to renew your subscription for Volume number III beginning January 1939. Renewals have already been received from Dean A. G. DuMez of Baltimore, Dr. Paul J. Jannke of Milwaukee, Dr. L. Wait Rising of Washington, Dr. Leon W. Richards of Montana, The Board of Education of the City of Detroit, and Professor Stephen Faud of Bagdad, Iraq. Such thoughtfulness is worthy of commendation. The Editor trusts all others will be as helpful. Address all renewals to Professor Zada M. Cooper, State University of Iowa, Iowa City, Iowa.

Rufus A. Lyman, Editor.

REPORTS OF OFFICERS, DELEGATES AND COMMITTEES AT THE 1938 MEETING

Report of Secretary-Treasurer

The year's work can be summed up in a few short sentences. The correspondence is considerable and at times on very vital matters, but these vital matters will be reported by other officers.

An abstract of the 1937 convention proceedings was prepared and has been printed in the Journal.

Membership in the Association remains unchanged at 55 colleges. For the first time in a number of years, no college is in arrears for dues.

A detailed financial statement is appended. The balance in the checking account is \$2439.74. In the special fund, \$2715.28 is in a savings account and there are government bonds with a par value of \$5000.00, making a total of \$7715.28. In accordance with the action of the Association at the Dallas meeting, the expense of inspection of 11 colleges, by the American Council on Pharmaceutical Education, was paid from this fund.

Total expense for the American Journal of Pharmaceutical Education has been \$1525.15. Itemized this covers the following:

Printing, 4 issues.....	\$1451.65
Printing index for Vol. I.....	53.35
Printing, miscellaneous.....	10.50
Postage	63.00

Of more interest perhaps is the amount of receipts and the net cost to the Association.

Subscriptions and single copies.....	\$633.65
Advertising	155.00
Total.....	\$788.65

Since the Journal of the American Pharmaceutical Association has used only the summary of proceedings and our program for this convention, our contribution to it was reduced from \$300.00 to \$50.00. So, adding the \$250.00 saved there to receipts from our Journal, leaves a net cost of \$486.50. Compared to the cost of the last volume of

Proceedings, that of 1935 which was \$808.35, there has been a saving of \$313.80 to the Association and the number of pages has been doubled, there being 452 in the Journal as against 225 in the Proceedings.

FINANCIAL STATEMENT 1937-1938

RECEIPTS

1937		
Aug. 16	Cash balance on hand.....	\$1700.21
Sept. 25	American Journal of Pharmaceutical Education 20 subscriptions (1 for 2 years).....	42.00
Oct. 5	State University of Iowa, College of Pharmacy, annual dues and Journal subscription.....	50.00
" 11	North Dakota Agricultural College, School of Pharmacy, annual dues and Journal subscription.....	50.00
" 11	Connecticut College of Pharmacy, annual dues and Journal subscription.....	50.00
" 11	University of Mississippi, School of Pharmacy, and Journal subscription.....	50.00
" 11	George Washington University, School of Pharmacy, annual dues and Journal subscription.....	50.00
" 13	Temple University, School of Pharmacy, annual dues and Journal subscription.....	50.00
" 14	University of Southern California, College of Pharmacy, annual dues and Journal subscription.....	50.00
" 15	Howard University, College of Pharmacy, annual dues and Journal subscription.....	50.00
" 16	Indianapolis College of Pharmacy, annual dues and Journal subscription.....	50.00
" 16	Massachusetts College of Pharmacy, annual dues and Journal subscription.....	50.00
" 18	Loyola University, New Orleans College of Pharmacy, annual dues and Journal subscription.....	50.00
" 18	Louisville College of Pharmacy, annual dues and Journal subscription.....	50.00
" 18	Alabama Polytechnic Institute, School of Chemistry and Pharmacy, annual dues and Journal subscription.....	50.00
" 18	Creighton University, College of Pharmacy, annual dues and Journal subscription.....	50.00
" 18	Rhode Island College of Pharmacy and Allied Sciences, annual dues and Journal subscription.....	50.00
" 19	University of Minnesota, College of Pharmacy, annual dues and Journal subscription.....	50.00
" 19	Detroit Institute of Technology, College of Pharmacy and Chemistry, annual dues for 1935-1936.....	50.00
" 21	University of Colorado, College of Pharmacy, annual dues and Journal subscription.....	50.00
" 21	Purdue University, School of Pharmacy, annual dues and Journal subscription.....	50.00
" 22	University of Notre Dame, Department of Pharmacy, annual dues and Journal subscription.....	50.00

" 25	University of Wisconsin, Course in Pharmacy, annual dues and Journal subscription.....	50.00
" 25	American Journal of Pharmaceutical Education, seven subscriptions (one for 2 years).....	16.00
" 25	Xavier University, College of Pharmacy, annual dues and Journal subscription.....	50.00
" 25	University of South Carolina, School of Pharmacy, annual dues and Journal subscription.....	50.00
" 28	Rutgers University, New Jersey College of Pharmacy, annual dues and Journal subscription.....	50.00
" 28	Ohio Northern University, College of Pharmacy, annual dues and Journal subscription.....	50.00
" 29	University of Nebraska, College of Pharmacy, annual dues and Journal subscription.....	50.00
" 30	National Association of Boards of Pharmacy, share of cost of reporting joint session.....	8.37
" 30	Medical College of Virginia, School of Pharmacy, annual dues and Journal subscription.....	50.00
Nov. 5	University of Michigan, College of Pharmacy, annual dues and Journal subscription.....	50.00
" 6	American Pharmaceutical Association, share of cost of reporting joint session.....	8.37
" 8	St. Louis College of Pharmacy, annual dues and Journal subscription.....	50.00
" 8	Pittsburgh College of Pharmacy, annual dues and Journal subscription.....	50.00
" 8	University of North Carolina, School of Pharmacy, annual dues and Journal subscription.....	50.00
" 8	Philadelphia College of Pharmacy and Science, annual dues and Journal subscription.....	50.00
" 8	University of Kansas, School of Pharmacy, annual dues and Journal subscription.....	50.00
" 9	Duquesne University, School of Pharmacy, annual dues and Journal subscription.....	50.00
" 11	University of Illinois, College of Pharmacy, annual dues and Journal subscription.....	50.00
" 13	University of Tennessee, School of Pharmacy, annual dues and Journal subscription.....	50.00
" 15	University of Maryland, School of Pharmacy, annual dues and Journal subscription.....	50.00
" 20	University of Idaho, Southern Branch, College of Pharmacy, annual dues and Journal subscription....	50.00
" 22	University of Washington, College of Pharmacy, annual dues and Journal subscription.....	50.00
" 24	South Dakota State College, Division of Pharmacy, annual dues and Journal subscription.....	50.00
" 27	Oregon State Agricultural College, School of Pharmacy, annual dues and Journal subscription.....	50.00
" 29	American Journal of Pharmaceutical Education, 35 subscriptions (one for 2 years) and 8 single issues	76.00

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Dec. 2	State College of Washington, School of Pharmacy, annual dues and Journal subscription.....	50.00
" 8	Western Reserve University, School of Pharmacy, annual dues and Journal subscription.....	50.00
" 11	University of Oklahoma, School of Pharmacy, annual dues and Journal subscription.....	50.00
" 17	Farmers' Loan and Trust Company, portion of the 5th dividend (5% of \$9460) (remainder in savings account)	70.45
" 20	University of Florida, School of Pharmacy, annual dues and Journal subscription.....	50.00
" 22	American Journal of Pharmaceutical Education, 20 subscriptions (one for 2 years).....	52.05
1938		
Jan. 15	Detroit Institute of Technology, College of Pharmacy and Chemistry, annual dues for 1936-1937.....	50.00
" 15	Wayne University, College of Pharmacy, annual dues and Journal subscription.....	50.00
" 15	University of Puerto Rico, College of Pharmacy, annual dues and Journal subscription.....	50.00
" 22	American Journal of Pharmaceutical Education, 73 subscriptions (2 for 2 years).....	151.55
" 29	American Journal of Pharmaceutical Education, 29 subscriptions (2 for 2 years).....	62.00
Feb. 1	State University of Montana, School of Pharmacy, annual dues and Journal subscription.....	50.00
" 3	Ohio State University, College of Pharmacy, annual dues and Journal subscription.....	50.00
" 9	University of the Philippines, College of Pharmacy, annual dues and Journal subscription.....	50.00
" 15	Valparaiso University, College of Pharmacy, annual dues and Journal subscription.....	50.00
" 19	American Journal of Pharmaceutical Education, 49 subscriptions	98.05
" 26	American Journal of Pharmaceutical Education, 11 subscriptions and 3 single numbers.....	23.50
Mar. 26	American Journal of Pharmaceutical Education, 20 subscriptions (1 for 2 years) 2 single numbers, 2 page ads at \$25.00 each.....	93.00
Apr. 13	University of Georgia, College of Pharmacy, annual dues and Journal subscription.....	50.00
" 15	American Journal of Pharmaceutical Education, 22 subscriptions (1 foreign, 2 years).....	47.00
" 18	West Virginia University, College of Pharmacy, annual dues and Journal subscription.....	50.00
" 28	American Journal of Pharmaceutical Education, 5 subscriptions (1 for 2 years).....	12.00
" 28	University of Texas, College of Pharmacy, annual dues and Journal subscription.....	50.00
May 7	First National Bank, 5th and last dividend, 13.45% (totaling 93.45% of deposit).....	122.31
" 16	Detroit Institute of Technology, College of Pharmacy,	

Reports of Officers, Delegates and Committees 559

	and Chemistry, annual dues for 1937-1938 and Journal subscription.....	50.00
June 2	Transfer of fund for "Study of Pharmacy" from savings account, to cover cost of inspection of 11 member-colleges	1925.00
" 20	Ferris Institute, expense of three inspections.....	109.93
" 25	American Journal of Pharmaceutical Education, 8 subscriptions, 2 page ads and 1½ page ad.....	73.50
" 27	North Pacific College of Oregon School of Pharmacy annual dues and Journal subscription.....	50.00
Aug. 19	American Journal of Pharmaceutical Education.....	52.00
		<hr/> \$7583.29

DISBURSEMENTS

1937		
Sept. 7	Rufus A. Lyman, for postage.....	\$ 10.00
" 9	Ernest Little, expenses while attending annual convention	18.75
" 9	Ernest Little, dinner for guest speaker.....	2.00
" 10	Railway Express Agency, stationery to Deans Little and Muldoon, reports and papers to Dr. Lyman....	1.60
" 11	Master Reporting Company, reporting convention sessions, including teachers' conferences.....	174.77
" 12	Zada M. Cooper, expenses in attending annual convention	106.85
" 25	Zada M. Cooper, for stamps.....	25.00
" 27	Verona E. Lambert, stenographic service.....	6.60
Oct. 2	Bursar, National Research Council, annual contributions, 1936-37 and 1937-38 to Committee on Pharmacognosy and Pharmaceutical Botany.....	50.00
" 4	Economy Advertising Company, letterheads, envelopes and statements.....	30.09
" 6	National Conference on Pharmaceutical Research, annual dues.....	25.00
" 9	Ernest Little, postage and telegrams during year 1936-37	35.03
Nov. 1	Clafin Printing Company, 1000 copies American Journal of Pharmaceutical Education, 136 pages and cover and insert, 142 pages at \$2.30 per page.....	\$326.60
	1 cut.....	4.50
	100 checks.....	6.75
" 1	First Capital National Bank, notary fees.....	337.85
" 5	Ernest Little, expenses in attending Sixth Educational Conference at New York.....	1.75
" 5	Ernest Little, expense of trip to Washington, D. C.....	7.25
" 8	The Clafin Printing Company, 100 reprints of Constitution and By-Laws.....	13.80
" 8	Johanna M. Nelson, typing.....	6.17
" 18	Rufus M. Lyman, expense of trip to inspect Detroit Institute of Technology.....	2.00
		57.70

" 18	A. G. DuMez, expense in attending meeting of Executive Committee of National Drug Trade Conference..	3.65
" 19	The Claflin Printing Company, 100 reprints of Summary of Proceedings.....	8.19
" 20	Charles B. Jordan, expense of trip to inspect Detroit Institute of Technology.....	33.75
" 29	Ries Book Store, stationery.....	2.48
Dec. 1	First Capital National Bank, notary fees.....	1.00
" 2	Edward Spease, expense of trip to inspect Detroit Institute of Technology.....	19.94
" 4	The Claflin Printing Company, 500 cards with statement of advertising rates.....	3.75
" 10	Johanna M. Nelson, typing.....	2.00
" 13	Wortley F. Rudd, expense of attending meeting of National Drug Trade Conference.....	20.05
" 13	American Council on Pharmaceutical Education, contribution	200.00
" 16	J. Lester Hayman, expense of attending meeting of National Drug Trade Conference.....	22.39
" 20	A. G. DuMez, expense of attending meeting of National Drug Trade Conference.....	10.30
" 21	Rufus A. Lyman, stamps for Journal business.....	15.00
" 23	First Capital National Bank, rental on safety deposit box	2.20
1938		
Jan. 3	First Capital National Bank, notary fees and exchange on checks.....	.70
" 4	S. T. Morrison and Company, renewal of bond for Secretary-Treasurer	25.00
" 14	McDonough's Florist, flowers for the LaWall's.....	8.55
Feb. 2	The Claflin Printing Company, 1000 copies American Journal of Pharmaceutical Education, 124 pages and cover, 128 pages at \$2.30 a page.....\$294.40 1000 copies of index to volume 1, 8 pages.... 53.35	347.75
" 17	The Pharmaceutical Syllabus Committee, annual contributions for 1933-1934 and 1937-1938.....	100.00
" 22	Rufus A. Lyman, stamps for Journal business.....	10.00
Mar. 1	First Capital National Bank, notary fee, exchange and collection fee.....	.40
" 3	Creighton University, College of Pharmacy, refund of subscription to American Journal of Pharmaceutical Education.....	2.00
" 3	American Pharmaceutical Association, contribution to cover printing of abstract of proceedings of 1937 meeting in Journal of that Association.....	50.00
" 4	American Council on Education, constituent membership dues 1938-1939.....	100.00
" 16	Zada M. Cooper, for stamps.....	25.00
Apr. 1	First Capital National Bank, notary fee.....	.25
" 29	Charles B. Jordan, expenses for Committee on Predictive and Achievement Tests.....	7.60
" 30	American Council on Pharmaceutical Education for	

	inspection of the University of Minnesota College of Pharmacy and the State University of Iowa, College of Pharmacy.....	350.00
May 4	The Clafin Printing Company, 1000 copies American Journal of Pharmaceutical Education, 192 pages and cover, 196 pages at \$2.30 a page.....	450.80
" 10	American Council on Pharmaceutical Education for inspection of the George Washington University, College of Pharmacy; University of Maryland, School of Pharmacy; Rutgers University, New Jersey College of Pharmacy; and Philadelphia College of Pharmacy and Science.....	700.00
" 15	American Council on Pharmaceutical Education, for inspection of Massachusetts College of Pharmacy; Medical College of Virginia, School of Pharmacy; West Virginia University, College of Pharmacy; Duquesne University, School of Pharmacy, and Pittsburgh College of Pharmacy.....	875.00
" 21	Rufus A. Lyman, expense in attending annual meeting of the American Council on Education.....	94.85
" 28	Carl J. Klemme, expense of trip to Big Rapids for inspection of Ferris Institute, College of Pharmacy.....	33.50
" 28	Charles H. Rogers, expense of trip for inspection of Ferris Institute, College of Pharmacy.....	59.07
" 28	Rufus A. Lyman, expense for inspection of Ferris Institute, College of Pharmacy.....	17.36
June 1	Agnes Shriner, typing.....	1.00
" 11	W. Paul Briggs, expenses in representing American Association of Colleges of Pharmacy at centennial of the Medical College of Virginia.....	7.00
" 21	R. A. Lyman, postage for American Journal of Pharmaceutical Education.....	15.00
July 1	S. P. Benson, binding volume I, American Journal of Pharmaceutical Education.....	1.75
" 28	Irma P. Ray, typing.....	37.40
" 28	Rufus A. Lyman, stamps for Journal business.....	13.00
" 28	Clafin Printing Company, 1000 copies American Journal of Pharmaceutical Education, 136 pages and cover, 140 pages at \$2.30 per page.....	322.00
Aug. 8	Ernest Little, honorarium as Chairman of the Executive Committee.....	100.00
" 16	Ernest Little for postage and telegrams.....	31.66
" 19	Zada M. Cooper, honorarium as Secretary-Treasurer.....	100.00
	Total expenditures.....	\$5143.55
	Cash on hand.....	2439.74
		<hr/> \$7583.29

SUMMARY OF RECEIPTS

Cash on hand.....	\$1700.21
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Dues for 55 colleges for 1937-38.....	2750.00
Dues for 1 college for 1936-37.....	50.00
Dues for 1 college for 1935-36.....	50.00
National Association of Boards of Pharmacy, share in reporting joint session.....	8.37
American Pharmaceutical Association, share in reporting joint session.....	8.37
Dividends from closed banks.....	192.76
American Journal of Pharmaceutical Education.....	788.65
Transfer from savings account for the inspection of 11 colleges.....	1925.00
Expenses of inspection of Ferris Institute.....	109.93
	<hr/>
	\$7583.29

SUMMARY OF DISBURSEMENTS

Reporting 1937 convention.....	\$ 174.77
Expenses of Chairman of Executive Committee to convention....	18.75
Expenses of Secretary-Treasurer to convention.....	106.85
Bond for Secretary-Treasurer.....	25.00
Expense of inspecting Detroit Institute of Technology.....	111.39
American Journal of Pharmaceutical Education.....	1525.15
Expense of inspecting Ferris Institute.....	109.93
American Council of Pharmaceutical Education, inspection of 11 colleges.....	1925.00
Postage, express, telegrams.....	118.29
Clerical service.....	49.00
Contributions.....	400.00
Dues to various organizations.....	125.00
Expenses of representatives to various meetings.....	179.29
Stationary and office supplies.....	32.57
Reprints.....	14.36
Honoraria.....	200.00
Miscellaneous.....	28.20
	<hr/>
	\$5143.55

ZADA M. COOPER,
Secretary-Treasurer.

Report of the Executive Committee for the College Year 1937-1938

The Executive Committee of the American Association of Colleges of Pharmacy has authorized its Chairman to submit the following report, covering the college year 1937-1938, for your consideration.

ENTERING STUDENTS

All Association colleges have submitted reports on enter-

ing students as provided in our By-laws. The entering students for this college year 1937-1938 number 2,262. This number compares with a matriculation of 2,232 for 1936-1937, and 2,347 for 1935-1936. Last year we reported a decrease of about 5 per cent as compared with the 1935-1936 enrollment. This year's enrollment of new students shows an increase of about 1.3 per cent over the 1936-1937 figures, but is still 3.7 per cent below the 1935-1936 enrollment.

You may be interested to know that the average entering class of the 54 colleges enrolling freshmen last September was slightly less than 42 students. Two of our Association colleges enrolled over 100 entering students, one college had between 90 and 100 students, one between 80 and 90, two between 70 and 80, five between 60 and 70, six between 50 and 60, five between 40 and 50, fourteen between 30 and 40, eleven between 20 and 30, seven between 10 and 20. None had an entering class of less than 10.

An examination of these data reveals that over 50 per cent of the Association colleges had entering classes of between 20 and 40. Twenty-one colleges had entering classes larger than the average of 42 students and 33 colleges, or a little over 61 per cent, had entering classes below the average for the whole Association.

We should derive encouragement from the fact that of our 2,262 new students last September, 752, or 33 per cent, had had previous college training. This compares with a figure of 32 per cent for September, 1936. Is it not noteworthy that one out of every three students entering our colleges of pharmacy has had previous college training?

We find a fairly substantial decrease in the number of women enrolled in the entering classes of the Association colleges last year. Two hundred and seventy-nine, or about 12.3 per cent of our entering students were women, as compared with a figure of 13.7 per cent for September, 1936. This represents a decrease of about 10 per cent in the number of women students as compared with their 1936-1937 enrollment.

Among the students entering college last September we find 71 individuals who have already been awarded academic degrees. Last year 69 such degrees were held by entering students. This fact, together with other evidence, indicates very clearly that the quality of students admitted to the Association colleges is constantly improving. Among those holding degrees in this year's entering classes we find 2

Pharmacy Graduates, 2 Pharmaceutical Chemists, 1 Bachelor of Philosophy, 32 Bachelors of Arts, 33 Bachelors of Science who have specialized in various branches of science, and 1 Master of Science. Again it seems encouraging that so many individuals who have completed their undergraduate courses in other curricula should be attracted to the profession of pharmacy.

The total number of graduates receiving the Bachelor of Science in Pharmacy degree during the past academic year was 1,169, which compares with 1,128 degrees awarded for the previous year and represents an increase of less than one additional graduate per college.

The following advanced degrees, 31 in number, were awarded for the successful completion of graduate work: Pharmaceutical Chemist, 4; Master of Science in Pharmacy, 17; Doctor of Science, 1; Doctor of Philosophy, 9. Twenty-eight advanced degrees were awarded by Association colleges during the college year 1936-1937.

The following honorary degrees were also awarded during the past academic year: Master of Science, 2; Doctor of Pharmacy, 4; Doctor of Science, 5; Doctor of Laws, 1; Doctor of Philosophy, 1. These degrees, fourteen in all, show an increase of four over those awarded during the year 1936-1937.

The Executive Committee expresses the hope that all of the Association colleges will maintain a conservative policy of granting honorary degrees. Few colleges award more than two honorary degrees; one might be considered a better allotment per college. The honorary award of doctors' degrees should be made with greatest caution, and the Doctor of Philosophy degree should never be so awarded.

The Executive Committee recommends that our member colleges be not permitted to award the Doctor of Philosophy degree as an honorary degree and that our Secretary be instructed to write the Dean of each Association college informing him of this action.

TOTAL ENROLLMENT

We had in the Association colleges last year 6,468 regularly enrolled students or an average of a little less than 118 students per college, exclusive of special and graduate students.

One Association college had a total enrollment of 321 students, a second had 267 students, and a third 237. Three col-

leges had enrollments between 220 and 230 students, one had an enrollment of 218, 8 had enrollments between 150 and 200, 15 between 100 and 150, 17 between 50 and 100, and 2 had enrollments less than 50. The lowest total enrollment in an Association college last year was 13 students. Thirty-one colleges, or a little less than 57 per cent of our membership, had enrollments ranging between 40 and 120.

The Executive Committee is pleased to note that graduate work in colleges of pharmacy seems definitely on the increase. Sixteen Association colleges are now offering regularly scheduled graduate work. The University of Maryland leads the list with 23 graduate students. The University of Washington has 21 graduate students, Purdue 13, and Michigan and Wisconsin have 12 each. No other college of pharmacy has more than 10 graduate students.

We feel that the next logical step in the development of pharmaceutical education is the continued expansion and improvement of our graduate program. A wholesome condition will exist when more of our colleges are prepared to offer a sound, comprehensive program of graduate studies.

COMMENT ON ENROLLMENT DATA IN ASSOCIATION COLLEGES

A review of the above data very definitely indicates that pharmacy colleges are not furnishing adequately trained men in numbers sufficient to meet the minimum demands of the profession.

We commented on this fact last year and are repeating it now because we feel it is of fundamental importance and should have your immediate attention.

The American Association of Colleges of Pharmacy is opposed to any extravagant program of pharmaceutical education. We believe, as we always have, that the overcrowding of any profession will very definitely cheapen and eventually ruin that profession. On the other hand, we must not blind ourselves to the equally devastating influences of extreme underproduction.

In a recent letter one of our Association deans wrote our Chairman as follows: "As the full effect of the four-year course begins to be felt, I know that in several states criticism is being levelled at the law which may result in efforts for its repeal. Might it not be well to handle this particular matter in strong language in your annual report?"

We very definitely share the concern which has been expressed to the Chairman by this dean. All of us fought for many years for the standards which were finally achieved. If they were worth achieving, they are worth preserving.

We should continue to impress upon the retail pharmacist how important it is for him and for his profession that the four-year course, with all of its splendid standards, be maintained. We should try to impress upon him how essential it is that a conservative minimum enrollment in our colleges be maintained and solicit his cooperation in obtaining this end. We believe that if this matter is called to the attention of retail pharmacists in the proper manner that they will encourage more worthy students to consider the advisability of following the profession of pharmacy and point them in the direction of our colleges of pharmacy.

We do not want retail pharmacists, as economic conditions improve, to suddenly realize that an acute shortage of registered pharmacists has developed and resort to unfortunate methods of relieving the embarrassment.

Such conditions may not prevail in all states, but they do in many. They constitute a problem which should be faced by every dean without delay. The beneficial effects of an increased enrollment this fall could not be felt by retail pharmacists before the early part of 1943. How essential it is that no unnecessary time should be lost in the meantime.

Each dean should critically examine the enrollment or enrollments in his state in conjunction with the number of registered pharmacists needed to carry on the responsibilities of retail pharmacy. If the number of pharmacy college graduates in his state is less than 2.5 per cent of the number of registered pharmacists in the practice of pharmacy, the program is definitely not extravagant and steps should be taken, if necessary, to see that these numbers do not decrease.

This problem has been called to our attention from several sources and it is at the request of fellow workers in the field of pharmacy that it has been so presented.

CHANGES AND SUGGESTED CHANGES IN THE PROGRAM OF THE AMERICAN ASSOCIATION OF COLLEGES OF PHARMACY

As you know, our Constitution and By-laws provide that the Executive Committee shall assume the responsibility of providing for and arranging the program of our annual meet-

ing. This is an important and difficult assignment and one which we have tried to meet as effectively and efficiently as possible.

Last year two innovations were put into effect. The Tuesday morning meeting which was previously a joint meeting of the American Association of Colleges of Pharmacy and National Association of Boards of Pharmacy was altered by inviting the American Pharmaceutical Association to become the third member of our pharmaceutical family on this occasion. There are many problems which are shared jointly by these three bodies and joint discussion should prove helpful in arriving at the best possible solution of such mutual problems.

Also, for the first time, our Monday evening banquet was held jointly with the National Association of Boards of Pharmacy. Some complications arising from such a joint banquet were apparent last year. In many instances these difficulties were of a minor nature and the Committee believes that our members appreciate and welcome every opportunity of joint action and cooperation on the part of these two groups, avoiding of course forced or artificial associations.

We shall be pleased to learn how our members have reacted to these two changes. Will you please so inform us, either from the floor of the convention, at some of our sessions during the next two days, or by way of letter to the Chairman of our committee?

This year two additional changes have been initiated. The Monday evening session has been given over to a panel discussion of questions vital to pharmacy. It would seem as if much good should result from this change.

It is hoped that you will give unusually critical attention to this evening's program and express your opinion as to the advisability of continuing this innovation, some time during our sessions.

In order to compensate for this loss of time for other purposes, it has been necessary to enforce a recommendation adopted several years ago and limit the reports of the various committees to ten minutes. Is this advisable? Does it seem wise to ask important committees to spend days and weeks of time on their responsibilities and then allow them but ten minutes to present their findings and recommendations to the members? The Committee is asking and not answering this question at this time. As a result of discussions held at

various times during the past year it is clear that a unanimous opinion on the part of the Committee has not been arrived at.

If you believe the panel discussion is worth continuing but do not approve of the restricted amount of time for committee reports, how do you feel that the requisite amount of time can be saved to best advantage? Shall the teachers' conferences on Monday morning be eliminated, or the Monday evening banquet, or is there still some better possibility of obtaining the necessary time? These are questions of some importance. Please let us have the value of your counsel.

The suggestion has come to us that it might prove advantageous to combine the various teachers' conferences and hold one joint meeting. Such an arrangement would mean fewer and possibly better papers from the various sections. It would afford our members the opportunity of hearing and participating in the discussion of all papers presented. It would result in a much larger and no less enthusiastic audience and might pave the way for the occasional use of outside speakers of distinction. Some of the committeemen feel that it might be well to try such an arrangement experimentally next year. May we learn of the reaction of the members and of the officers of the various sections to this suggestion?

In order to lighten the burden and increase the efficiency of the committee on resolutions, the Executive Committee has requested and urged all officers, committee chairmen or other individuals who have resolutions to bring before the convention, to present them in writing to the Secretary, if possible in advance of the meeting; or to the chairman of the resolutions committee as soon as possible following the appointment of this committee. It will thus be possible for the resolutions committee to give preliminary consideration to some resolutions before they have been formally presented to the convention.

This will make for greater efficiency and we believe it meets with your whole-hearted approval.

PROPOSED AMENDMENTS TO THE CONSTITUTION AND BY-LAWS

There are two important proposals before our Association dealing with amendments to our Constitution and By-laws.

One of these proposals, recommending that the membership of the Executive Committee be increased from seven to nine members, was presented by the Executive Committee.

Article VIII of the Constitution of the American Association of Colleges of Pharmacy, at the present time, reads as follows:

Executive Committee: The Executive Committee shall consist of the Chairman, the President, and the Secretary-Treasurer of the Association, and four accredited delegates, two of whom shall be elected by ballot each year and who shall hold office for two years.

This provision allows for an Executive Committee of seven members including the President of the Association.

The Executive Committee believes it is highly desirable that the Editor of the *American Journal of Pharmaceutical Education* should be a member of the Executive Committee. Questions concerning the management of the *Journal* and the advisability of referring certain matters to the *Journal* for presentation to our members are constantly arising in meetings of the Executive Committee. It so happens that at the present time the Editor of the *Journal* is also a member of the Executive Committee, but such might not always be the case.

The Committee also feels that it would be helpful to make the provision that the immediate Past-President of the Association shall be a member of the Executive Committee for a period of one year following his term of office as President.

The Committee is of the opinion that it would not be objectionable to increase the size of the Executive Committee from seven to nine members. This would provide for greater representation on the Executive Committee by the member-colleges but would not, we believe, make the Committee too large for the efficient handling of the Association's business between meetings.

With these thoughts in mind the Executive Committee recommends that Article VIII of our Constitution be amended to read as follows:

Executive Committee: The Executive Committee shall consist of the Chairman, the President, the Secretary-Treasurer, the Editor of the *American Journal of Pharmaceutical Education*, the immediate Past-President of the Association, and four (4) accredited delegates: two (2) of whom shall be elected by ballot each year and who shall hold office for two (2) years.

Article XI of our Constitution reads as follows:

Amendments: Any proposal to alter or amend this Constitution shall be submitted in writing to the Chairman of the Executive Committee not later than forty days prior to the annual meeting of the Association and a copy of such proposed alteration or amendment shall be mailed by the Chairman to each member college not later than thirty days prior to the said annual meeting. Such alteration or amendment shall, upon receiving a two-thirds vote of the membership, become a

part of the Constitution. Should such alteration or amendment receive an affirmative vote of a majority of the members represented at any meeting, but less than two-thirds of the total membership, the votes of the member colleges not represented at said meeting shall be taken by mail.

All regulations and procedures outlined in Article XI have been fully met and your Executive Committee recommends the adoption of the proposed amendment.

The other proposals have been presented by a special committee made up of Professor Zada M. Cooper, Dean C. B. Jordan, and Dean A. G. DuMez, Chairman.

This Committee was appointed by President Crockett, at your direction, for the purpose of revising our Constitution and By-laws so as to bring them into conformity with the standards for the accreditation of colleges of pharmacy adopted by the American Council on Pharmaceutical Education.

Inasmuch as these latter recommendations were not proposed by the Executive Committee and will be presented by Dean DuMez's committee, we shall not comment on them at this time, except to state that they meet with the approval of the Executive Committee and seem definitely to be in line with progress in pharmaceutical education.

The Executive Committee feels that the American Association of Colleges of Pharmacy standards should not be lower than those of the accrediting agency we have helped to create and whose standards we have approved by formal vote.

AMERICAN COUNCIL ON PHARMACEUTICAL EDUCATION

It is not the responsibility of the Executive Committee to comment in any detail on the American Council on Pharmaceutical Education. Your committee, appointed for this purpose, will call to your attention such matters, pertaining to the activities of this body, as may be of interest and concern to you.

We know that the member-colleges of the Association are appreciative of the great good which may be accomplished by the American Council on Pharmaceutical Education. We believe that you have complete confidence in its personnel and will continue to give these men the fine support which they have so far received.

We wonder, however, if it might not prove helpful to the Council if the Association deans would assume the responsi-

bility of acquainting their Presidents with the organization and objectives of our accrediting body. It might be well to point out to them that the Council was organized at our request, that we have approved its policies, and standards, and that it numbers among its ranks some of the most capable and trustworthy men in American pharmacy. If we will do this, the operation of the Council will be greatly facilitated and American pharmacy correspondingly benefited.

It is quite possible that a well-intentioned but uninformed college president might impede and greatly injure this most important work. It is for this reason that this matter is respectfully called to your attention.

Some of our members have expressed the fear that the successful operation of the American Council on Pharmaceutical Education might result in a decreased prestige and importance of the American Association of Colleges of Pharmacy.

The Executive Committee shares no such concern. The American Council on Pharmaceutical Education as now constituted would seem to be the most logical accrediting body for colleges of pharmacy thus far organized.

Until now the only accrediting bodies in this country have been the Boards of Pharmacy and to a lesser degree the American Association of Colleges of Pharmacy.

The standards set up by the Boards have varied greatly in different states and proper coordination has been lacking for this purpose.

The American Association of Colleges of Pharmacy has done a fairly acceptable job, but even its own members have felt that a program of self-accreditment leaves much to be desired, no matter how efficiently the work may be done.

With the American Council on Pharmaceutical Education assuming the major responsibility for accreditment, the American Association of Colleges of Pharmacy would be free to devote its full time and talent to the consideration of other problems vital to the future of pharmaceutical education.

Among such problems might be included:

1. A study of minimum entrance requirements for colleges of pharmacy, with the possibility in mind of bringing about greater uniformity throughout the states and especially in the Association schools.
2. The continued improvement of the pharmaceutical curriculum with respect to the subjects included, the proper

sequence of the subjects making up the curriculum as well as the length and content of the various courses.

3. The preparation of a list of books and journals which should be included in every college of pharmacy library. The list of books should include the title, the edition, the name of the author, the name and address of the publisher, and the price of each volume. Such a list would be appreciated by all and most helpful to schools which are building new libraries.

4. We realize that the cost of education varies considerably in different sections of the country, but it might prove helpful if some study could reveal the minimum of money which a college can spend per student and the amount which should be obtained from sources other than tuition fees in order to function properly and maintain adequate standards.

5. A study to determine if we have too many colleges of pharmacy in some sections of the country, or possibly too few in others, and what might be done to remedy the situation.

6. What can the colleges do to replace the better portions of the tradition which was formerly built up through a long period of apprenticeship in the drug store?

7. A continued and increasingly intensive attempt to discover ways in which the pharmacy college graduate can utilize his professional education in retail pharmacy and in other branches of the general field of pharmacy. Changing times have created new opportunities for the pharmacy graduate to apply the information, technique, and general skill which he acquired in college.

These are but some of many problems which are challenging us today. The successful solution of even a few such problems will do much more to increase the standing and prestige of the Association than merely maintaining its status as an accrediting agency.

The creation of new incentives, through constructive studies from which colleges of pharmacy will benefit, can make membership in the American Association of Colleges of Pharmacy more attractive to individual colleges than it has ever before been.

The creation of the American Council on Pharmaceutical Education has resulted in several duplicating lines of activity between this body and the American Association of Colleges of Pharmacy. Both bodies are now charged with the responsibility of the annual collection of data on the enrollment of students and their entrance qualifications as well as data with

respect to the names and addresses of persons on whom degrees have been conferred.

Do we wish this duplication of activities to continue or shall we delegate these responsibilities to the American Council on Pharmaceutical Education as *the* accrediting body?

We must also adopt a definite policy as to the visitation of member colleges in the future. We believe that most of our members feel that it is no longer necessary to visit each member college once in three years. Perhaps, in the future, it will be necessary to visit only such colleges as fail to get on the accredited list of the American Council on Pharmaceutical Education or which are reported to be in trouble and in need of help from the Association. You will recall that we have previously voted to discontinue the inspection of Association colleges until we had had an opportunity of observing how effectively the American Council on Pharmaceutical Education would function, before recommending final action.

Inasmuch as any change in these regulations can be brought about only by amendments to our Constitution and By-laws, they are questions which must be settled by the membership at large and not by the Executive Committee. We know that you will give them your best consideration and be prepared to act promptly and wisely when recommendations are brought forward by the appropriate committees.

AMERICAN JOURNAL OF PHARMACEUTICAL EDUCATION

Our *Journal* has continued to make progress during the second year of its life and has now progressed to the point where it is a very definite asset, not only to the Association but to pharmaceutical education and to pharmacy as well.

Many of you have not had the opportunity of learning of the tremendous amount of time which the Editor has devoted to this work, others of you have. We are sure you all share our feeling of deep appreciation to Dean Lyman for the really great contribution which he is making to our profession.

The Executive Committee has felt that some modest compensation should be given to the Editor of the *Journal* for his untiring efforts in behalf of this project. This suggestion has been steadfastly opposed by him. We do feel that the Association should insist that Dean Lyman accept the usual honorarium of one hundred dollars per year and that the Association defray his expenses to our annual convention each year. We fear that the Editor will definitely oppose this sug-

gestion and recommend that such action be taken by the Association in spite of his objection.

Although we feel that the Editor has accomplished much during the past year, we believe that much more might and could have been accomplished if he had had better facilities at his disposal.

We believe that more subscriptions could and should be obtained. We believe that the amount of advertising from proper sources can be substantially increased. We suggest to our editor that he concentrate so far as possible on these two suggested lines of attack next year. We recommend that the sum of \$360.00 a year be appropriated to furnish the editor with part time secretarial help, providing the finances of the Association make such an appropriation possible and feasible. We realize that all of this suggested additional work can be best carried out under the direct supervision of the Editor and that the modest appropriation suggested will greatly facilitate such efforts. It is our opinion that providing such additional help would not prove a drain on the treasury, but would result in actual economy on the part of the Association.

STATE AID FOR PHARMACEUTICAL EDUCATION

Reports, which have been received by the Chairman of the Committee from time to time, indicate very definitely that in some instances pharmacy, in state-supported universities, is not receiving consideration in the matter of budget allowance, comparable to other professional schools.

This condition may in some cases be due to lack of aggressiveness on the part of pharmacy college deans, a failure on their part to bring home to their presidents and budgetary officers the need and justification of such appropriations.

College presidents strive to an unusual degree to be fair and unbiased in the discharge of their obligations. We feel quite certain that once the real facts have been brought home to them, greater justice will prevail and pharmacy will receive its just share of state appropriations. We also suggest that in those rare instances where it seems impossible to obtain adequate recognition for pharmaceutical education, the matter be brought to the attention of the Executive Committee. It is possible that we may be able to render helpful assistance. Certainly nothing would be attempted which might antagonize or offend the university officials to whom the approach is made.

We also believe that colleges of pharmacy which are not colleges of state-supported universities should most seriously consider the possibility of obtaining financial help from the state in which they are located. In fact we feel that they are not discharging their full responsibility to pharmacy unless they do so. The cause is a just one, the need is real, and the arguments are profound.

There is no real reason why every state in the Union, which has a college of pharmacy within its borders, should not provide for pharmaceutical education to the very best of its ability. In rare instances it may be necessary for pharmacy colleges to call for the support of retail druggists in order to accomplish this result which is absolutely necessary if pharmacy is to render its best service in the health program of the commonwealth.

PROBLEMS AND PLANS COMMITTEE

The work of the Problems and Plans Committee has been steadily increasing during the past several years, in fact to such an extent that we understand the Chairman is considering reorganizing a number of the subcommittees in order to take care of the ever increasing work. We shall expect the same illuminating, instructive report which we have received from this committee each year since its organization.

COMMITTEE ON PHARMACY PREDICTIVE AND ACHIEVEMENT TESTS

One of the most aggressive committees during the past year has been the Committee on Pharmacy Predictive and Achievement Tests.

The detailed plans of this Committee have been published in the *Journal* and are familiar to all of you. Its plan of action covering a period of not less than five years, has been worked out in considerable detail. It awaits only adequate funds to initiate a program which should prove a great help and credit to pharmaceutical education.

We shall look forward with considerable interest to the report of this committee.

SUBSECTION ON PHARMACY OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

Our members have always shown themselves eager to lend their support to all pharmacy activities which they considered to be worthy and vital to the profession of pharmacy.

One activity which seems to have escaped our attention to a considerable degree and which we possibly have not supported as much as it merits is the Subsection on Pharmacy of the American Association for the Advancement of Science.

This section affords pharmacy the opportunity of working cooperatively with medicine as well as representatives of all the various branches of science. Its programs have been uniformly good and have solicited favorable comments from men in the other professions.

Although our attendance has not been bad, it has not reflected the whole-hearted interest and support of our colleges.

Will you please give more attention to this important pharmacy activity? Watch the *Journal* for announcements pertaining to future meetings. Be prepared to have your college contribute to its program when requested to do so and attend whatever meetings you find possible. In so doing you will be playing your part in a worthy cause.

AMERICAN PHARMACEUTICAL ASSOCIATION COMMITTEE ON MODERNIZATION OF PHARMACY LAWS

The American Association of Colleges of Pharmacy is interested, as it should be, in the splendid work which is being initiated by the American Pharmaceutical Association Committee on Modernization of Pharmacy Laws of which Dr. Robert L. Swain of Baltimore, Maryland, is Chairman. The report of this Committee caused widespread, favorable comment at the 1937 convention. We believe that all of you will want to keep informed of the progress and proposals of this Committee and of course stand ready to render all possible assistance.

EXAMINATION OF PHARMACISTS FOR THE MEDICAL ADMINISTRATIVE CORPS OF THE UNITED STATES ARMY

About two years ago we were immensely pleased to learn of the increased recognition which had been given pharmacy through the agency of the Medical Administrative Corps of the Regular Army. New legislation, passed at that time, made it mandatory that the next eighteen men admitted to the Medical Administrative Corps as Second Lieutenants should be registered pharmacists who hold the Bachelor of Science in Pharmacy degree and who are graduates of a four-year course in a recognized college of pharmacy.

We have no desire to relate again the important facts relative to this noteworthy legislation. The point is that we hoped at that time, as we still do, that within a reasonable period of time men so admitted might be promoted to higher commissions and that this corps might eventually be known as the Pharmacy Corps.

Whether or not this is ever accomplished depends to a considerable extent on the type of men who succeed in passing the War Department's examinations and the quality of work which they render.

We trust that every Association college will make it a point to interest worthy applicants in the next competitive examination. We should not be too much discouraged by the high percentage of failures which have resulted from the first two examinations. It should be borne in mind that approximately two-thirds of our applicants who passed the written examinations were disqualified as a result of physical disabilities.

Will you again make a survey of your alumni early this fall to determine how many of them, possessed of strong physique and unusual mental attainments, might be interested in trying for these appointments?

It would make a fine impression on the Adjutant General if our list of candidates could be made promptly available when requested.

Last December the War Department was much disturbed by the small number of applicants who responded to the examination announcements. A letter from our Chairman brought a response of over one hundred applicants, but the erroneous impression of lack of interest had been created.

On July 26, the War Department released the following announcement:

**EXAMINATION OF PHARMACISTS
FOR THE MEDICAL ADMINISTRATIVE CORPS, REGULAR ARMY**

The War Department is announcing an examination November 14-18, 1938, to qualify candidates for appointment as Second Lieutenant in the Medical Administrative Corps, Regular Army, to fill the nine existing vacancies.

Appointments will be made from pharmacists, male citizens of the United States, between the ages of 21 and 32 years, who are graduates of recognized schools or colleges of pharmacy, that is, schools or colleges approved by the American Association of Colleges of Pharmacy, requiring four years of instruction for graduation and legally authorized to confer the degree of Bachelor of Science in Pharmacy.

Examination for appointment includes physical, a written examination in Practice of Pharmacy, Pharmaceutical Chemistry, Pharmacognosy, Pharmacology, and Bacteriology, Hygiene and Sanitation, and an estimate of the candidate's adaptability for military service.

Examining boards will be convened at convenient locations throughout the continental limits of the United States for the examination of candidates authorized by the War Department to appear before them. Full information and application blanks will be furnished upon request by The Adjutant General, War Department, Washington, D. C.

Applications will not be considered after October 29, 1938.

We trust that a list of at least one hundred names of good men will be in the office of the Adjutant General well in advance of October 29 and preferably within the next few weeks.

Please give this matter your careful attention. It is of vital importance to us and to our profession.

The Association has experienced some difficulty in obtaining promptly copies of some of the papers which have been read by our members at our various meetings. In order to promote efficiency and to safeguard the Association in every possible way, we recommend that all papers, read at our meetings or in the teachers' conferences, shall become the property of the American Association of Colleges of Pharmacy and that copies of such papers can be given to the pharmaceutical press or other journals only by the Secretary of the Association with the consent of the Executive Committee.

It is understood that nothing in this resolution shall make it impossible for us to properly cooperate with the American Pharmaceutical Association Committee on Lay Press Relationships.

REVISION OF LEAFLET NO. 14

You will be pleased to learn that Leaflet No. 14, dealing with "Pharmacy as a Profession," as issued by the Department of the Interior, has been revised by the American Pharmaceutical Association and will soon be available in completed form.

Your Executive Committee was of some assistance to Secretary Kelly in revising that portion of the Leaflet dealing with colleges of pharmacy and pharmaceutical education.

These leaflets should prove of value to vocational guidance directors in our high schools, as well as to prospective pharmacy students.

We are of the opinion that our colleges should be able to

make greater use of these leaflets in the future than they have in the past.

EXECUTIVE SESSION

It will be necessary this year to handle all of our sessions with as much dispatch as seems compatible with sound procedure.

For the past two years no executive session has been necessary. This year there are matters of considerable importance for your consideration and disposal.

Several colleges have applied for membership in the Association and five such colleges have been inspected. The recommendations of the Executive Committee based upon the reports of these inspection committees constitute an important part of the business of the executive session.

We know that the member-colleges will be well represented at this session. It is hoped that we may have ample time for deliberation and that the 1938 convention will prove to be equal or superior to those which we have enjoyed so much in past years.

ERNEST LITTLE, *Chairman.*

Report of the Chairman of the Problems and Plans Committee

There are three major problems now before the committee. I shall state these problems and comment upon the present status of each.

1. Researches upon the Deterioration of Drug Products.

The purpose of this study is to find out some legal basis for the restriction of the sale of drugs and medicines to pharmacists. For years the courts have been saying that such restrictive statutes would be held valid if the proposed restrictions in fact, have a tendency to protect public health and safety. In a recent case the court said "we have gone out of our way to find some justification to find this act valid." But all the court could find was an attempt to confer a monopoly on the part of pharmacists at the expense of other retail groups. In order to meet these objections of the court, it is suggested, that authentic information be collected showing what drug products deteriorate.

The request for this study came to the American Association of Colleges of Pharmacy from the American Pharmaceutical Association at the Dallas meeting. Dr. R. L. Swain was the moving spirit behind the request. The problem was referred by the Executive Committee to this committee for consideration. Of course, the study of the deterioration of drug products began when pharmacy began to be a science. Innumerable studies have been made and are recorded in literature. It seemed to resolve itself into a task of collecting and compiling the work already done so as to have it in convenient form for ready reference. This in itself seemed a tremendous task and the chairman in his first communication found that he had an uninterested committee. But as there is nothing like time to assuage the sorrows of men so there is nothing like time to give a different perspective. When the matter was again placed before the committee during the current year, it was greeted with interest. The trend may be best expressed in the words of various committeemen as follows—

"Whether exact data on deterioration of various drugs, even if entirely known, would have any influence on the courts toward restriction of drug sales to pharmacists, seems to me problematical. Nevertheless, I am firmly of the opinion that tabulation of known data on decomposition of all substances used in medicine would be of immense value. Further researches might then be instituted to complete our knowledge. With exact data on hand as to possible deterioration of each and every drug used, including details as to time, temperature, locality, humidity, light, and other conditions, the pharmaceutical profession would be in the natural and expected position of expert in the field. It is more difficult to say who should start and finish such a study, but there is no doubt in my mind that someone should do so. The chief reason for this opinion is that pharmacy *should know*, whether or not this has any influence on court decisions or not."

"The study would be lengthy but worthwhile and should be limited at first to the official substances and then extended to the unofficial ones which rightfully belong in the pharmacy such as insecticides, cosmetics, spices, etc. This could not be completed in a short time."

"I am confident that one of the outstanding weaknesses through the years has been the matter of not convincing the legislators regarding the instability of many of the important medicinals. A possible solution, or assistance in passing proposed pure food and drug legislation certainly needs pertinent facts as support. Much could be brought to light on deterioration and proper storage of drug products from a careful survey of the literature. The problem apparently resolves itself into several steps:

- a. Selecting the pharmaceuticals most likely to give the needed

data such as tincture of iodine, the solution of hydrogen peroxide, spirits of nitrous ether, aspirin tablets, etc.

- b. Finding capable individuals willing to undertake the necessary investigations.
- c. Ways and means of getting the data before the public, or stimulating the interest of organizations with sufficient political power to use the information for legislative purposes after it is assembled."

"The study is of great importance. It would involve first of all a compilation of the work which has already been done. This would be a stupendous task. Its completion would require several years."

"This is unquestionably a worthwhile project but it is something that I personally would hesitate to undertake. There is a host of papers scattered throughout the literature on this subject and it would be a terrific task to collect them and properly evaluate them. After this was done it would then be necessary to draw conclusions therefrom. My suspicion is that one would find in the literature so many discrepancies and contradictions that it would be very difficult to do this. Therefore, it appears to me that this is such a huge task and of such a routine nature that we who are engaged in the more fundamental types of research would hesitate to undertake it. However, this does not help much in getting the desired information and I confess that I do not know just how this could be done except by the slow and laborious method of searching the literature and filling in gaps by actual experiments. Perhaps it would be possible to select only one or two drugs and cover those thoroughly. This would give something for the legal men to work on."

"I believe a compilation of work already done would be worthwhile. First, as evidence for the legal basis for restriction, and second, to uncover any weak links in this line of work. These, if found, might be taken up with the authorities of the United States Pharmacopoeia and National Formulary who would doubtless attempt to assign the work to competent investigators. Too much research is undertaken without knowledge of what has been done already. There is too little synthesizing of scattered observations, and here is one opportunity to accomplish a bit of correlation. It would be advantageous to have a worker already in that field undertake responsibility for the compilation. He would doubtless assemble all references on deterioration, consult with various authorities in the field, and compile the results in reasonably brief form."

"I believe the project is one which is highly deserving of study. There is no question in our minds but that drugs do deteriorate and that both the value and the safety factors are altered thereby. Information of this nature must, however, be brought forcibly to the attention of our legislators if they are to realize that not every Tom, Dick and Harry is qualified to retail drugs."

One member of the committee has expressed himself to the effect that problems of legislation are not problems that belong to the colleges of pharmacy, but rather to the National Association of Boards of Pharmacy, the American Pharmaceutical Association and the various state and local

groups and should be sponsored by those groups. This in a way may be true. Yet a study of the nature proposed does have direct relation to education and teaching groups and the groups mentioned are the only ones qualified to carry out such studies. Practical application of the knowledge gained can be made by any pharmaceutical organization, group or individual. This study was referred to the college group because this group is the only one that has any sort of machinery for such a study. The report so far has shown the value of this study to education and to professional practice. Since it is such a gigantic task and will require a considerable amount of clerical work, it would be a gracious thing and absolutely justifiable to ask the American Pharmaceutical Association for a grant to facilitate this study. Such a suggestion has already been made to and approved by the Executive Committee.

Much thought has been given and many suggestions made as to how this study can be carried out. The details are not complete and need not be discussed here.

It is the chairman's opinion that the knowledge assembled in this study would be of great value. But he also believes that a few experiences of the sulfanilimid brand will be much more effective in obtaining the proper protective legislation. He admits the price is high, but it seems the cost of all worthwhile things is high.

2. How to Find a Finer Type of Student Intellectually and Spiritually?

(See Dr. Wilson's Presidential Address. *American Journal of Pharmaceutical Education*, Volume 1, page 24.)

This problem was referred to the committee following the Dallas meeting. A great deal has been said about it. Some think that this will be accomplished by the use of different types of tests which will help us to determine the intellectual quality of the high school student. This phase of the work was placed in the hands of the Committee on Predictive and Achievement Tests by action of the Association. There remains then the question, "Is there any possible way that we can measure the character of the student?" This is not alone a problem of our profession, the American Council on Education has established a conference on professional education which takes in all the professions including law and engineering and one of the problems before

that conference is to determine how the ethics of the professions can be promoted. (See American Journal of Pharmaceutical Education, Volume 1, number 4, page 494.)

A few years ago Dr. Palmer Findley in his presidential address before the Nebraska State Medical Association discussed the qualifications of a student for the study of medicine. He placed as qualification number one,—Honesty.

If we could offer something constructive along this line, it would not only be a service to our profession, but to others also. On the first presentation of this problem to the Committee it was met with a cold stare. The second presentation brought a response that was far from hopeless as the following statements attest.

"The raising of ethical standards of entering students is indeed an important problem, but I see no possibility of concerted action by pharmaceutical educators. Probably if each school used the utmost care for a time in selecting only those with the highest reputation, the problem would ultimately take care of itself. There is a possibility of the Association setting up a standard, if we could find some basis for measuring, but my whole experience tells me that any attempt to formulate ethical requirements will probably result in failure. There may be some means to do this collectively, but I must confess entire ignorance of any ideas as to how it could be done."

"I hope the report that I am expecting to complete soon for our committee will show that the four year course is attracting a finer type of student intellectually and possibly spiritually (?). The latter is rather difficult to attain under our present unsettled world and unbalanced budgets. The ethics of some of our own teachers might be improved and more stress on ethics in our courses might be of value. Little help along this line can be expected from our present day proprietors. How about working in this direction with our registered non-proprietor pharmacists, especially the four year graduates. They are the real martyrs and forgotten men in our present commercialism."

"This is, indeed, a perplexing problem. A selective classification of any group, particularly when there has been no contact or training in the profession prior to selection is a great handicap. A possible solution might be (but severe on pharmacy enrollments) the accepting of only those high school graduates who have "above average" A.C.E. rating and possess tendencies toward a scientific mind. Prior to the regular fall registration at this institution an entire week is devoted to orienting new students to college procedure. During this week the freshman class receive rating tests (I.Q., Psych., etc.). This contact and placement study of the students is helpful to our personnel committee, which constitutes guidance, personnel and scholarship combined. I have had opportunity to review Dr. Klemme's outline of the Committee on Predictive and Achievement Tests concerning the intellectual phase of this problem.

"I am not enthusiastic about increasing the spiritual quality of

the student. I do not believe that this can be done until pharmacy has more to offer than it has at the present time. I certainly do not believe that it can be done by the use of predictive tests. I believe that the only way in which we can improve the status of pharmacy is through the enactment of more stringent pharmacy and drug laws and the strict enforcement of them."

"Dean Johnson of the University of Washington says that this problem should be very easy to solve by simply asking whether a student is a good Presbyterian or not. This calls to my mind one of the tests which was given when I was in high school to candidates for the Edison scholarships. Students were given a sheet of paper upon which was printed a spiral. The instructor made a little speech telling the students how important it was that they be successful in this test, and then directed them to place their pencils in the center of the spiral, visualize the spiral in their minds, close their eyes and trace the spiral without error. The instructor then said, "Now at the signal 'Go!' everybody begin," then walked to the back of the room and said, "Go." When the papers were collected all students who had traced the spiral perfectly were eliminated from the contest because they could only have done this by dishonestly opening their eyes. This test was, therefore, actually a test of honesty. Perhaps it would be possible to devise some similar test for our purposes.

"Seriously though, putting this facetiousness aside, I don't believe that it is possible to objectively test character or spirituality and I don't think, therefore, that anything really constructive could be done along this line."

"I believe two aspects are involved. First, how to find a finer type of student, and second, how to develop admirable qualities in pharmacy students. I do not believe tests given to entering students will reveal their character unless they are stupid, and cannot figure out the right answers. Confidential reports from responsible people who know the candidate intimately seem more reliable to me. And even their value is limited.

"After a student is once matriculated it is up to his teachers. You cannot teach ethics in a class. It must be brought in incidentally. I do not believe that preaching by the deans or professors means much. I do believe that quiet work with individual students does. This is how I "get next" to the students: After the first examination in the fall I ask the students individually to bring their papers to me. I go over the mistakes with them and have a talk with each one. This is done after each examination, especially with the slower students. Eventually they come to enjoy the discussions and many topics come up for discussion. I am able to discuss books, movies, drug stores, professionalism, and almost any matter with them in a free and easy way. Last week I had a long talk with a student on tobacco and liquor—its use and abuse. If I had ranted in class about intemperance it would have been a waste of time (especially since I smoke too much myself.) I do not believe it was with this boy. One drawback to this method is the time involved. A man active in research cannot do it—but one primarily a teacher can. The trouble is you never get a raise on such work, because no one

knows about it. But there are other compensations. I believe this is the only way to get much done along these lines.

As to a report on such activities, the problem is to get teachers to see their responsibility. So long as pay is dependent on research, you cannot blame younger men for cutting the students short on time. Either one has to be willing to sacrifice his own advancement, or keep out of the missionary field. I believe you must work on the teachers first—then through them on the students."

As the chairman meditates upon the meditations of his committee he arrives at the same viewpoint which we have all known to be true, that the finest spiritual culture has come to man through millions of years of education and control on the part of his ancestry and that he will do most for the elevation of the ethics of his profession who will continue that policy in classroom and practice, by word and deed through the years that are allotted to him to set an example to that protoplasmic stream that will continue to flow through the halls of learning. If someone has a new deal to propose, the committee will listen—but it will take the experiences of many generations to convince men that there is a better method than the one nature has apparently provided. Again, only time can give an answer and the committee concludes its study by placing the responsibility for a higher ethical standard in the student body upon the conduct of every individual in the body pharmaceutic which action can in anyway influence the idealism of the student of pharmacy.

The chairman wishes to add this comment in fairness to the idealism of the retail druggist. It is his opinion from observations he has made the country over, that professional idealism is quite as evident among the retail druggists as it is among the college faculties. If there was time, he could cite specific cases. To him, this is the most hopeful sign for the future of professional pharmacy. We must recognize it, cultivate it, and give credit where it is due. This is pharmacy's greatest asset.

3. That the Problems and Plans Committee be authorized to assemble the undergraduate needs and evaluate the research facilities of the colleges of the Association and in addition act as a connecting link with pharmaceutical business interests for the promotion of a better understanding and for procuring educational and research support for our colleges of pharmacy. This recommendation proposes, furthermore, that the committees cooperate when advisable with

committees of affiliated societies that are seeking the same objective. These recommendations were made by President W. G. Crockett in his New York City address. The Committee on Resolutions modified these recommendations by saying that the Problems and Plans Committee "be requested" to study the advisability of assembling the undergraduate needs, etc., instead of "authorized."

It is evident from the nature of these recommendations that here is another long time study and effort. After deliberation of the committee upon the projects, the following viewpoints are in progress of maturing.

"I assume that the matter is two-fold—(1) a consideration of the undergraduate curriculum and equipment in each school to determine how this trains for graduate study and how well the institution is equipped for such graduate work; (2) the matter of enlisting interest and funds from pharmaceutical business.

(1) It would be necessary first to outline requirements in equipment and in the undergraduate curriculum. One cannot come to any conclusion on a particular school without having some standards to go by and my own opinion is that a collective agreement in the American Association of Colleges of Pharmacy is the first necessity. Perhaps an elaboration on the membership standards of the Association to cover needs for graduate work would be sufficient. Until we have a definite statement of some standards, it would seem useless to make a study of an individual school.

(2) The procuring of support from business interests for graduate work at schools of pharmacy is also an important subject. At the present time each school makes its own contacts. I would be very much interested in hearing the suggestions of others along this line. No constructive suggestions occur to me except the formulation of a contact committee of the Association. Any work done by such a body would best follow studies of graduate facilities in the various schools."

"This is an important problem especially that phase which would strive to get the support of pharmaceutical business interests who are doing very little and not their share along these lines. This help, however, will not be forthcoming until we can show that our schools have the proper research facilities whereby they can profit by them."

"The solution of this problem, it seems to me, will be somewhat solved through the data requested on the questionnaire forms for accreditation of colleges by the American Council on Pharmaceutical Education. A study of this naturally would be enlightening and certainly a step in the right direction for pharmaceutical education and the future of the profession."

"Concerning the assembling of undergraduate needs and the evaluation of research facilities of the colleges of the Association, I would be very much in favor of attempting it. I feel that graduate work is at the present time being over-emphasized by administrators and

that undergraduate instruction is being neglected. I also feel that some colleges of pharmacy which are not qualified are offering work toward advanced degrees. This is one reason why pharmaceutical business interests do not contribute to the support of research in colleges of pharmacy."

"Regarding the project of evaluating the research facilities of the colleges of the Association, I think this would be an excellent undertaking, but does such an evaluation really need to be made? Everyone knows which colleges are doing research by the papers which come from them. Indeed, I believe that an evaluation of material things would be actually misleading. One man may have a marvelous laboratory, expensively equipped, and after great struggles bring forth, like the mountain, only a mouse. Another without any such facilities might bring forth a second Gargantua. This, of course, means that the mind is superior to the tools with which it works and therefore the measurement of the tools alone is insufficient."

"I believe such a study is advisable—to canvass the colleges to determine what type of research can be done, and what the need for support is. Then to see what support can be obtained."

These comments speak for themselves. It is the chairman's opinion that the study for accreditation being made by the American Council of Pharmaceutical Education is a basic study which will reveal the undergraduate needs of our colleges as regards equipment, curricula, and men. As regards research, the product of the institution is the best indication of its research facilities and also of the type of research being done. Never-the-less, I am of the opinion that there is no institution that could not be benefited by a detailed study of its needs, or helped by a competent committee of visitation.

The problem of obtaining financial support for both undergraduate and graduate education is dependent entirely upon the services the college of pharmacy can render and it is a problem of each individual college and not the problem of a centralized committee. Each institution must appeal to its own students, its own alumni, and its own supporters and friends for the support and the development of its own educational and research programs. While the Editor of the American Journal of Pharmaceutical Education may have, in its pages, criticised the manufacturers and druggists for giving funds to the support of all kinds of education except pharmaceutical, I believe it is largely the fault of our own group because of inactivity. When we begin to plan things on a basis that will appeal to the pride of the alumnus and the good judgment of the far seeing manufacturer, we can expect support. Such planning is everybody's problem. The

work of this committee is to foster such a program and keep it before this body.

Finally, a word about the minor projects before this committee which have a far reaching educational significance and which are basic and can be carried to a successful completion by a single man, or at most a small group. Such a study was reported at the New York meeting on the Teaching of Pharmacology by Dr. James M. Dille of the University of Washington. A second one by Professor Ernst T. Stuhr of the Oregon State College on a Survey of Regulations and Educational Requirements in Foreign Countries that was published in the April number of the Journal. A survey by Dr. R. A. Deno of the Medical College of Virginia on the Teaching of Biology in Colleges of Pharmacy is completed and will be presented at this meeting as a part of this report. A Study of the Character of the Four Year College Student as Compared to Short Course Students by Dr. H. M. Burlage of the University of North Carolina is nearing completion and will be printed in the *American Journal of Pharmaceutical Education* at an early date. These studies are of great value in developing our curricula and building the Pharmaceutical Syllabus.

At this point a note came from Dr. A. O. Weese of Ohio State University at Kent, Ohio, who is secretary and treasurer of the American Association of School Health, acknowledging the receipt of the annual dues of the writer. I quote from the letter,— "We note that you have been named Chairman of the Executive Committee of the Subsection on Pharmacy of the American Association for the Advancement of Science. We congratulate you on this appointment. We shall notify the Journal of School Health and you may get some inquiries that may be troublesome and some that may be helpful." I make the quotation to show that the work of the Subsection on Pharmacy is attracting attention from the most unexpected quarters. This committee is concerned with the developing of a high class program in the Subsection on Pharmacy and takes advantage of this occasion to urge the support of scientific pharmacy among the galaxy of sciences that constitute the American Association for the Advancement of Science.

Rufus A. Lyman, Chairman.

The Report of the Editor of The American Journal of Pharmaceutical Education

The Journal speaks for itself four times a year. There is little the Editor can add. There are some things that have surprised the Editor. Perhaps it will be of interest to mention a few.

Although it has been mentioned many times in the pages of the Journal, there are a number of schools that do not know that when they pay their annual dues of \$50.00, two dollars of this is for one subscription for the Journal. This is necessary because of the postal regulations. Otherwise, it would not be possible to obtain the special second class mailing rate. This one copy, which is automatically paid for, is always sent to the library of each college of pharmacy unless the Editor is otherwise instructed.

A number of deans have been so thoughtful and so co-operative as to order an extra subscription for the general library of the university of which the college is a part and some independent colleges have ordered a second copy for the college library. This has not only increased the income, but it has put the Journal into hands of people that it would not otherwise reach. This is a distinct service on the part of these deans and is worthy of commendation.

The number of copies that "have never been received" is amazing. As a matter of fact the Editor believes they were received. He cannot conceive that even a democratic postmaster general could be so inefficient. Some of these requests are for numbers more than a year old. Either they have been lost or stolen. The Editor has noted that when the subscriber has the Journal sent to his home address, it is not lost. We still have copies for replacement, but it is expensive business for the Association. Some subscribers have graciously paid for lost copies.

There is a feeling voiced only by a few, that each member of the faculty should receive a free copy of the Journal. This seems to be based upon the fact that several copies of the old Proceedings were furnished to each college. Such an argument is about as sound as the one is that you should not pay railroad fare now because you did not before you were five. We have also been told that this is the policy of the American Association of Colleges of Medicine,

perhaps it is so. It should be remembered that the membership fee in that Association is \$250.00 instead of \$50.00 and they do not publish as good a journal.

The financial status of the Journal will be given by Secretary Cooper who handles all the funds. The subscription list has increased slightly this year. A few foreign subscriptions (one in Canada, one in Syria and one in Iraq) have been added. The amazing thing is that we have a number of institutions in our membership who are not contributing a single subscription. A still more amazing thing is that when some time ago I asked the deans of the colleges if they thought printing of the subscription list in the Journal would stimulate subscriptions, the cry of coercion rang throughout the land. And more amazing still is the fact that such a mild form of coercion should be criticised when a much severer type seems to be the order of the day and at a time when high pressure salesmanship is being advocated by many as a basic subject in the college of pharmacy curriculum. All I have to say, is that if you are not supporting the Journal with your subscription, then in the language of my friend Walt Cousins of Texas "You just better go off in a plum thicket and look at yourself in a looking glass and think it over."

Support of the Journal continues to come from the Boards of Pharmacy and I am satisfied there are many sources where subscriptions can be obtained when we get the time to go after them.

A few firms have graciously lent advertising support to the Journal. Colleges of Pharmacy must realize that if this support is to be continued, the advertisers must see their books being bought and if the advertising support is to be increased we must make it worth-while. This is a responsibility of the group and not of the Editor.

It is impossible to print in the Journal all the material received for publication and stay within the total cost allotment made by the Publication Board. The Editor has had to select, and in doing so, he has chosen that material which he thought most worth-while to our group and those outside of our group who read the Journal. While attending the annual meeting of the American Student Health Association at Chicago during the Christmas Holidays, Dean Swintalla of the St. Louis College of Medicine complimented

me upon the contents of the Journal, saying it contained articles every medical man should read. I have in another report mentioned Dr. C. R. Mann's reference to the Journal. He could not have said what he did if he had not read the Journal through. And it is an interesting fact that because of the date of mailing of the April number, it could not have reached Dr. Mann earlier than 24 hours before the meeting of the American Council on Education, which was the busiest period of the year for him. The point is, that the Journal which was originally intended as a means for the expression of thought and as an avenue of communication between those engaged in pharmaceutical education, has become a contact organ between pharmacy and the related sciences and what pharmaceutical education is accomplishing in general will be judged by what appears in the Journal. This makes the contacts all the more important and shows why nothing can appear in the Journal which is not high class and constructive in its nature.

To those who have so freely contributed in many ways to the making of the Journal a potent factor in education, the Editor is personally grateful.

Rufus A. Lyman, Editor.

Report of the Delegate to the American Council on Education

The twenty-first annual meeting of the American Council on Education was held at the Hotel Mayflower in Washington on May 6th and 7th of the current year. By many it was considered the best meeting in the history of the Council.

After having made reports of the annual meeting of the Council for a decade, the writer is at a loss to know what to say relative to the annual meeting that would be of greatest interest to this Association. It would seem hardly necessary to say anything about the functions of the Council, except for the fact that there are annually those who hear this report for the first time. For any such, perhaps it is sufficient to say that the American Council on Education is the voluntary agency of coordination in American Education and because we are concerned with the develop-

ment of education in the United States, we should be acquainted with its work, its program, and its publications.

The writer believes the Educational Record, the official publication of the Council, should be in every college of pharmacy library, as well as many of its special reports and publications dealing with specific problems.

Since one of the problems of the American Association of Colleges of Pharmacy has been to make its meetings of greater interest it might be well for us to hear what Dr. C. S. Marsh, one of the vice presidents of the Council, thinks made this year's meeting the best in the history of the Council in the minds of many who attended. Perhaps we can get some ideas for our own meetings from a description of this meeting as printed in the Educational Record for July.

Dr. Marsh spoke as follows—"What makes a good meeting of an organization like the Council? Attendance is one consideration. There were, for example, 55 presidents of higher educational institutions, 50 deans and other administrative officers, 77 teachers (all levels), and 28 superintendents and principals. These represented 115 institutional members of the Council, that is, colleges, universities, state departments of education, city school systems, etc. That is nearly 13 per cent more than last year. Delegates came also from 26 national educational associations holding constituent membership in the Council and from 13 other organizations holding associate membership. There were as usual many guests from government departments and from organizations with headquarters or other representation in Washington. The total number of persons registered was approximately 400. As an additional attendance feature, the Middle Eastern Library Association asked to meet jointly with the Council in the closing session on Saturday afternoon. Consequently, an audience which crowded the floor and balconies of the ballroom of the Mayflower Hotel greeted the distinguished speakers in that session.

What makes a good meeting? Program is important. Any program is a good program that includes such names as Zook, Sexson, Hutchins, Elliott, Bigelow, Carmichael, and Valentine, William E. Dodd, former ambassador to Germany, and the novelist, Dorothy Canfield Fisher. All of the papers were excellent, and the demand for their wide distribution was expressed before the meeting adjourned. In recognition of that request, the July number of The Educational Record containing all of the papers was mailed nearly one month ahead of the regular mailing date.

This was a good meeting, not only because the attendance of delegates was larger, not only because important persons spoke, but also because the speakers plumbed the vital problems in American education, with papers that evinced understanding, imagination, and courage. Discussion in the sessions was all too brief because of lack of time. But it continued in the lobby. This informal discussion concerning the program is important in an organization whose mem-

bership is so diverse as that of the Council. And it was one of the reasons why the 1938 meeting was held in the Mayflower Hotel. Moreover, the foyer of the hotel made a convenient place for exhibit materials depicting the work of the various divisions of the Council.

A new feature of the 1938 meeting was four separate section conferences on Friday afternoon, as indicated in the program, to enable those in attendance to review more closely and informally some phases of Council operations. General consensus endorsed this innovation. Much was gained from the informal give and take questions and answers concerning the Youth Commission, the Financial Advisory Service, the Educational Motion Picture Project, and the Cooperative Study of Secondary School Standards."

To me, this meeting had a personal interest because the Chairman, President Edward C. Elliott was my quiz master in freshman chemistry when I was a freshman in the early nineties. This is why neither of us became chemists. Again, it was the father of Dorothy Canfield Fisher and Chancellor of the University of Nebraska who, forty-six years ago, laid a gentle hand upon my arm as I came from the drill field after a two hour siege under Lieutenant John J. Pershing, and said, "Young man, what do you think of Lieutenant Pershing as a taskmaster?" The question remained unanswered because the language necessary for an answer was not permitted in the family of a Presbyterian elder. But that is why I did not become a soldier. The high-light of the whole meeting came to me as I was checking out at the Mayflower. Dr. C. R. Mann, President Emeritus of the Council, whom we all regard with respect and affection, rushed up to me with the remark "Dr. Lyman, I have been wanting to tell you all through the session what a fine piece of work your Association is doing with the American Journal of Pharmaceutical Education. I especially enjoyed what you said in the last number about Newton D. Baker; he well deserved it."

Rufus A. Lyman.

Report of the Secretary-Treasurer of the American Council on Pharmaceutical Education for 1937-1938

The following constitutes the sixth annual report of the Secretary-Treasurer of the American Council on Pharmaceu-

tical Education. It covers the period August 16, 1937, to August 30, 1938, inclusive.

Membership. There have been no changes in the membership of the Council during the year. Attention, however, is called to the fact that the terms of office of the following expire this year:

E. F. Kelly, representing the American Pharmaceutical Association.

H. C. Christensen, representing the National Association of Boards of Pharmacy.

A. G. DuMez, representing the American Association of Colleges of Pharmacy.

David Allan Robertson, representing the American Council on Education.

Prompt attention should be given to this matter by the organizations concerned so that there may be no vacancies. The Council will be unusually busy during the coming year inspecting colleges and a full membership is desirable.

Meetings. Since August 15th, 1937, the Council has held two meetings; one in Washington, D. C. on December 6, 1937, and one in Baltimore on March 5, 1938.

At the December meeting final approval was given to the preparation of a booklet containing the constitution and by-laws of the Council and the standards for the accreditation of colleges and to the questionnaire forms to be completed by the colleges prior to inspection. Letters to be sent to the colleges of pharmacy and the secretaries of the state boards of pharmacy announcing that the Council was ready to begin the inspection of the colleges for accreditation were drafted. Provision was also made for the preparation of a release to the pharmaceutical press.

The entire time of the March meeting was devoted to the reviewing of the completed questionnaires received and to the perfecting of arrangements for the inspection of as many as possible of the colleges from which applications for accreditation had been received.

Other activities. Immediately after the March meeting, arrangements were made to have 500 copies of the booklet containing the standards for accreditation and 250 copies of the questionnaire form printed. Copies of each were sent to the colleges of pharmacy on December 15th with a letter informing them of the fact that the Council was now ready to begin the inspection of colleges of pharmacy for the purpose of determining their eligibility for accreditation.

and of the procedure which the colleges should follow in making application for accreditation. In this letter it was also stated that a uniform charge of \$175.00 would be made for each inspection and that this cost would have to be borne by the colleges seeking accreditation. Copies of this letter with the booklet and questionnaire were also sent the secretaries of the state boards of pharmacy and other state officials who requested them. Two weeks later, on January 3rd, a press release describing the work of the Council and carrying the notice that the latter was now ready to function as an accrediting agency was sent to the pharmaceutical journals so that all concerned might be fully informed of the progress which was being made.

In the letter of December 15th to the colleges, the latter were invited to make application for accreditation and to complete and return the questionnaire forms by February 15th so that they could be reviewed by the Council before committees were assigned to make the inspections. At the end of this period, February 15th, 35 completed questionnaires had been received. These were reviewed by the Council at the meeting held on March 5th and plans were made to inspect as many of these colleges as possible before the end of the school year.

Summary of progress in work of accreditation made to date. Information received from the state boards of pharmacy shows that there are 75 colleges of pharmacy in the United States proper, 1 in Porto Rico, and 5 in the Philippine Islands. Seven of the 75 in the United States proper are so called "quiz" or "review" schools. Of the 68 regular colleges of pharmacy in the United States proper, all but 1 have either filed applications for accreditation or have signified their intentions of doing so. Fifty-one have already filed applications, 43 have completed the questionnaire forms and are ready to be inspected; 8 state that they will return the completed questionnaire forms in the fall or early winter. Of the 43 colleges which have completed the questionnaire forms, 13 have been inspected.

In addition, conferences have been held with the deans of three other colleges, the completed questionnaire forms of which indicated that they were not ready for inspection at this time.

Financial Statement. Attached hereto is a financial state-

ment for the year. The unusually large balance is due to the fact that the Council has been paid \$175.00 each for the inspection of 13 colleges, which amounts to a total of \$2275.00. Only a portion of this was required to pay the expenses of inspection because the schools inspected were located so that time and expense could be saved. The unexpended balance will be required when the schools located at greater distances, in the south and far west, are inspected. The Council agreed that uniform charge for the inspection of each school would be made, and the balance will be required to pay the expenses of the longer trips. From the standpoint of the contributions received from the three sponsoring associations, the American Pharmaceutical Association, the National Association of Boards of Pharmacy, and the Association of Colleges of Pharmacy, the expenditures exclusive of those for the inspection of colleges consumed the greater part of the \$600.00 contributed. The two meetings of the Council held during the year cost approximately \$400.00 and additional expenditures for postage, stationery, telephone calls, etc., amounted to approximately \$45.00. Next year, when we undertake to complete the inspection of the colleges and to determine from the information assembled which of them are eligible for accreditation, we will, in all probability, have to hold more meetings of the Council and the expenditure will increase accordingly.

Conclusion. Based on the experience of the past year, it is the opinion of the Council that the work is progressing as rapidly as can reasonably be expected. The response of the colleges on the whole has been most encouraging. Apparently, there is a wholesome respect for what the Council is trying to do and little or no opposition has been encountered. As a matter of fact, some of the colleges of pharmacy were in the midst of making important changes in organization and curriculum during the past year or were contemplating changes in organization and curriculum which would become effective at the beginning of the next school year. These have requested that inspection be deferred until sometime next year. A few others have stated outright that they cannot meet the standards now but will make application for accreditation as soon as they feel that they can meet the requirements of the Council. In a few instances, colleges have reported that they have had some difficulty in

raising the funds to meet the cost of inspection, but all expressed the opinion that this difficulty would be overcome next year when provision for this expenditure would be made in the new budget.

There remain 55 colleges to be inspected. This is an enormous task to be completed in the course of one school year, but the Council believes that it can be done if work is begun promptly with the opening of the colleges in the fall. One of the greatest difficulties will be that of making out itineraries which will keep the cost of inspection within the \$175.00 limit set. It is believed, however, that this can be successfully overcome if the colleges which have not made formal application to date and those which have not yet completed the questionnaire forms will do so promptly. The expenses of inspection will exceed \$175.00 if only one college can be inspected on a single tour of the inspection committee, particularly if the college is located at a great distance from the city in which the inspectors reside.

The fine cooperation received from the secretaries of the state boards of pharmacy and the deans of the colleges of pharmacy has been responsible in no small measure for the satisfactory progress which the Council has made to date and I know that I speak for all of the members of the Council when I say that this cooperation is greatly appreciated and that it is hoped it will be continued so that we may reach the goal which we have set for ourselves, namely, the publication of a roll of accredited colleges of pharmacy by September 1, 1939.

A. G. DuMez.

FINANCIAL STATEMENT

AMERICAN COUNCIL ON PHARMACEUTICAL EDUCATION

For 1937-1938

RECEIPTS

1937

Aug. 10—Balance on hand.....	\$ 573.94
Dec. 20—A. A. C. P. contribution.....	200.00

1938

Jan. 11—N. A. B. P. contribution.....	200.00
May 12—A. A. C. P. for inspection of two colleges	350.00
May 16—A. A. C. P. for inspection of nine colleges	1575.00
May 24—A. Ph. A. contribution.....	200.00

June 21—U. of N. Carolina, payment for inspection..	175.00
July 19—U. of Illinois, payment for inspection.....	175.00

\$3448.94

EXPENDITURES

1937

Dec. 20—H. G. Roebuck & Son for printing booklet..\$	298.00
Dec. 20—C. B. Jordan, Travel Expense.....	68.70
Dec. 20—Townes R. Leigh, Travel Expense.....	38.70
Dec. 22—University of Maryland, for Postage, etc...	22.61

1938

Mar. 10—H. G. Roebuck & Son, envelopes.....	4.75
Mar. 10—A. G. DuMez, Meeting Expense.....	4.95
Mar. 21—Townes R. Leigh, Travel Expense.....	72.20
Mar. 21—C. B. Jordan, Travel Expense.....	66.39
Apr. 23—H. C. Christensen, Travel Expense.....	46.80
May 12—A. G. DuMez, Travel Expense.....	142.78
May 20—R. L. Swain, Travel Expense.....	45.80
May 20—E. F. Kelly, Travel Expense.....	44.75
May 28—A. C. Taylor, Travel Expense.....	84.20
May 28—C. B. Jordan, Travel Expense.....	114.75
May 28—H. C. Christensen, Travel Expense.....	183.43
June 9—Townes R. Leigh, Travel Expense.....	130.13
Aug. 1—A. G. DuMez, postage, etc.....	15.37

\$1384.31

BALANCE\$2064.63

A. G. DuMez
Secretary-Treasurer.

Report of the National Pharmaceutical Syllabus Committee, 1938

The Committee held a short meeting in New York in 1937, at which time Dean J. G. Beard resigned as chairman. The present chairman was notified of his election late in October.

Immediate plans were formulated for revising the present outlines of the Syllabus and, where it was deemed advisable, for the presentation of new ones. Following, in general, the procedure employed in the last revision, twenty-six (26) subcommittees have been formed.

The chairman of the Syllabus Committee has endeavored, by inquiry from others and through personal contacts, to select persons to head these groups, who were properly pre-

pared and recognized in their respective fields and, above all, were willing to assume the responsibilities of the tasks before them.

Each subcommittee chairman has been permitted to select the personnel of his group, however, the Syllabus chairman has been consulted and has, in turn, advised freely in these selections. Although the personnel of all groups is not yet complete more than 110 persons from all sections of the country are actively engaged in the revision work and no doubt, in many cases at a real sacrifice of time and energy. It is hoped that the product of their endeavors will be worthy of these efforts and in return will receive the proper recognition from all pharmaceutical groups.

A list of these collaborators follows:

Commercial Subjects

P. C. Olsen, Philadelphia, Chmn.
C. Leonard O'Connell, Pittsburgh
B. Olive Cole, Maryland
E. Fullerton Cook, Philadelphia
C. W. H. Scholz, Wharton School
of Finance
H. W. Heine, Purdue
H. P. Frank, Philadelphia
J. N. McDonnell, Philadelphia

PHARMACY SUBJECTS

Arithmetic of Pharmacy

E. L. Hammond, Mississippi,
Chmn.
J. W. Sturmer, Philadelphia
Edward Spease, Western Reserve
C. H. Stocking, Michigan
R. R. Kreuer, Duquesne

Elementary Principles of Pharmacy

J. B. Burt, Nebraska, Chairman
C. O. Lee, Purdue
Wm. A. Jarrett, Creighton
Geo. W. Hargreaves, Alabama
E. T. Motley, South Carolina

Dispensing Pharmacy

L. W. Rising, Washington, Chmn.
H. C. Newton, Massachusetts
W. J. Husa, Florida
L. W. Richards, Montana
G. Bachmann, Minnesota

Galenical Pharmacy

F. V. Lofgren, Valparaiso, Chmn.

N. T. Chamberlin, Western Reserve
C. L. Cox, Rutgers

History and Literature of Pharmacy

E. J. Ireland, Florida, Chairman
Edward Kremers, Wisconsin
Wm. Richtmann, Wisconsin
C. O. Lee, Purdue
C. C. Albers, Texas
Lloyd E. Harris, Oklahoma

Hospital Pharmacy (Dispensing)

Edw. Spease, Western Reserve,
Chmn.
W. G. Crockett, Virginia
H. A. K. Whitney, Michigan
I. T. Reamer, Duke
Insecticides
Lloyd E. Harris, Oklahoma, Chmn.
J. J. Davis, Purdue
Z. P. Metcalf, North Carolina
State

Latin of Pharmacy

H. C. Muldoon, Duquesne, Chmn.
J. G. Beard, North Carolina
J. L. Hayman, West Virginia
Leon Thompson, Massachusetts
W. F. Gidley, Texas

Manufacturing Pharmacy

Ed. D. Davy, Western Reserve,
Chmn.
W. G. Crockett, Virginia
M. J. Andrews, Maryland
H. A. K. Whitney, Michigan

New and Non-official Remedies

Marvin J. Andrews, Maryland,
Chmn.

P. A. Foote, Florida

Pharmaceutical Jurisprudence

R. L. Swain, Maryland, Chairman

Robert P. Fischelis, New Jersey

Pharmacy of Inorganic Substances

H. C. Newton, Massachusetts,
Chmn.

Pharmacy of Organic Substances

R. E. Terry, Illinois, Chairman

PHARMACEUTICAL CHEM-
ISTRY SUBJECTS

Biochemistry

H. B. Lewis, Michigan, Chairman

C. E. Schmidt, California

C. J. Klemme, Purdue

F. C. Forbes, Virginia

*Inorganic Pharmaceutical Chem-
istry (Qualitative?)*

H. G. DeKay, Purdue, Chairman

Organic Pharmaceutical Chemistry

F. F. Blicke, Michigan, Chairman

M. T. Bogert, Columbia

W. H. Hartung, Maryland

C. T. Daniels, California

F. A. Gilfillan, Oregon

G. W. Webster, Illinois

*Quantitative Pharmaceutical
Chemistry*

G. L. Jenkins, Minnesota, Chmn.

M. L. Jacobs, North Carolina

G. E. Cwalina, Creighton

BIOLOGICAL SUBJECTS

Botany

H. W. Youngken, Massachusetts,
Chmn.

H. R. Totten, North Carolina

F. J. Bacon, Western Reserve

C. W. Ballard, Columbia

L. K. Riggs, Washington

C. J. Zufall, Purdue

Bacteriology

L. Gershenfeld, Philadelphia,
Chmn.

Malcolm Soule, Michigan

T. C. Grubb, Maryland

F. Hart, Columbia

Pharmacognosy

B. V. Christensen, Florida, Chmn.

H. W. Youngken, Massachusetts

E. H. Wirth, Illinois

Pharmacology and Bioassay

J. M. Dille, Washington, Chairman

H. G. O. Holck, Nebraska

H. B. Haag, Virginia Med. College

P. J. Hanzlik, Stanford

R. N. Bieter, Minnesota

Physiology and Zoology

R. A. Deno, Rutgers, Chairman

A. J. Carlson, Chicago

J. M. Dille, Washington

R. A. Lyman, Nebraska

R. J. Main, Virginia

P. Okkelberg, Michigan

A. F. Shull, Michigan

H. B. Ward, Illinois

*Miscellaneous Subjects**Public Health Studies*

Leonard J. Piccoli, Fordham,
Chairman

R. A. Lyman, Nebraska

M. J. Rosenau, North Carolina

H. Emerson, Columbia

B. E. Holsendorf, U. S. Public
Health

A. Hardy, Columbia

R. P. Fischelis, New Jersey

E. B. Phelps, Columbia

C. F. Meyers, California

Cultural Subjects

J. L. Powers, Michigan, Chairman

R. L. Swain, Maryland

Edw. Spease, Western Reserve

J. G. Beard, North Carolina

C. O. Lee, Purdue

State Board Questions

R. P. Fischelis, N. J., Chairman

H. A. K. Whitney, Michigan

R. B. Cook, West Virginia

State Board members of the
Syllabus Committee

Each subcommittee chairman was furnished with the following list of instructions, in order to obtain some semblance of uniformity and completeness in the reports submitted:

1. Study articles that have been written by individuals interested in the particular type of instruction and which have appeared in the *Journal of the American Pharmaceutical Association* since 1930, in the *American Journal on Pharmaceutical Education* and the reports of the Committee on Curriculum and Teaching Methods, which appeared in the January issue of the last named Journal.
2. Recommend appropriate titles and list synonymous names that are used for the subject matter involved.
3. Present a clear interpretation of the objectives and functions of the course outlined.
4. Recommend minimum hours—didactic and laboratory—that the course proposed can be given in and yet maintain dignity and standards; also the optimum number of hours that should be devoted to the subject matter.
5. List the desirable prerequisites.
6. State the appropriate year (or years) in which the subject should be offered and state if required or optional.
7. Final outline submitted to follow form used by the present Syllabus.

To date fifteen (15) final reports and outlines have been received. Five (5) of these have been sent for criticism and comments to all of the schools of pharmacy and the secretaries of boards of pharmacy and replies, especially from the former group, are being received. Due to a lack of time the remaining ten (10) have only been distributed to the members of the Syllabus Committee.

The following Executive Committee, to act upon matters requiring immediate attention, has been approved by the General Committee:

W. G. Crockett, representing the American Association of Colleges of Pharmacy

Glenn L. Jenkins, representing the American Pharmaceutical Association

R. L. Swain, representing the National Association of Boards of Pharmacy

J. G. Beard, Ex-chairman of the Committee

A financial report extending from August 1, 1937 to August 15, 1938 is offered:

Receipts

Balance on hand August 1, 1937.....	\$108.43
Received from Ex-chairman J. G. Beard, November 1, 1938	511.47
Sales of Syllabi.....	15.52
Contributions from American Association of Colleges of Pharmacy	100.00

Contribution from National Association of Boards of Pharmacy	50.00
Contribution from American Pharmaceutical Association....	50.00
Interest	9.25
Total	\$844.67
<i>Disbursements</i>	
Postage and supplies (miscellaneous).....	\$ 65.65
Duplicating	111.87
Clerical	56.75
Check service charge.....	2.00
Total	\$236.27
Cash Balance.....	\$608.40

HENRY M. BURLAGE, Chairman.

Report of the Representatives to the National Drug Trade Conference

The Meeting of the National Drug Trade Conference was held in Washington, D. C., at the usual time in December at the Mayflower Hotel and the Association was represented by the full committee ably assisted by Dr. Ernest Little, and Dean W. F. Rudd.

The Conference was outstanding in that it was the most amicable meeting to be held for a number of years in that no controversial subjects were proposed. While the deliberations of the conference perhaps did not receive as much publicity as has been the case in former years, nevertheless many valuable committee reports were presented. Dr. J. H. Beal reported further upon his valuable and painstaking work as chairman of the Committee on Toxic Drugs, at which time he requested that he be relieved of the chairmanship of the committee. The work is to be continued under the direction of Dr. Robert P. Fischelis.

An important new committee on Socialized Medicine, under the chairmanship of Dr. Robert L. Swain made its first report which is published in the proceedings of the Conference.

This report as well as those of the Committees on Food and Drug legislation, Narcotic Laws, the status of Pharmacy and others were of such importance that the members of committee do not feel that they should be summarized and recommends that the full reports be read and studied by those interested in the various subjects.—W. Paul Briggs.

EDITORIALS

Atlanta in 1939

The last meeting of the American Pharmaceutical Association in Georgia was in 1878. This came shortly after the beginning of the building of Atlanta following its total destruction during the Civil War, and 22 years before the American Association of Colleges of Pharmacy was born. The building of the New Atlanta as one sees it today on the ashes following the visit of General Sherman in 1864, is a tribute to the courage and resourcefulness of the south. The Atlanta of today is a modern city with a population of approximately 250,000 with densely populated areas in its environs, but there still is apparent some of the distinctly southern atmosphere so typical of the south. It is generally conceded to be the business center of the southeast, and by virtue of the fact that it is a railroad center and its close proximity to the coast of the Atlantic Ocean, it is perhaps destined to be one of the key cities of the United States.

Atlanta is a city of beautiful homes, and due to the fact that it lies in the foot hills of the Blue Ridge Mountains, the residential section lends itself to beautiful landscape effects.

Atlanta is a center of education, both for white and colored people, being the home of Emory University and Medical School, Georgia School of Technology, Oglethorpe University, Agnes Scott Woman's College, the Southern College of Pharmacy, the Extension Division and Night School of the University of Georgia, Atlanta University for colored people, Morris Brown for colored people, and other smaller institutions.

It is the intention of the Committee on Entertainment to provide distinctly southern types of entertainment, and to have on display in the headquarters hotel, typical Georgia products, and provision will be made for visitation to cotton fields where cotton is being picked, to the cotton gins, cotton seed oil mills, and to the mills where cotton is woven into fabric. In other words, it is the hope and plan of the committee that the visit of the members of the American Association of Colleges of Pharmacy and its related organizations may give them a genuine acquaintance with the people and their customs and the variety of products which are typical of the state.—Robert C. Wilson.

Looking Ahead to 1939

It would seem that those who attended the August meeting must have left Minneapolis with the feeling that the 1938 convention was in many ways one of the most remarkable American Association of Colleges of Pharmacy assemblies of recent years.

One was impressed at once with the large attendance at the various meetings, a condition which lent dignity and impressiveness to a degree which we have not always enjoyed. One hundred and forty-nine delegates from fifty colleges established a record which may stand for some time. The actual attendance at our meetings was well in excess of these numbers, certainly exceeding two hundred. Meetings of this sort create an impression of solidarity and strength which cannot be enjoyed under less favorable conditions.

The 1937-1938 association year was an exceedingly busy and progressive period. This fact was in no small measure due to the aggressive yet careful leadership which marked the administration of President Muldoon during his term of office. President Muldoon displayed the conservatism which breeds confidence and the aggressiveness which makes for progress. He was also responsible for the panel discussion which was held on Monday evening and which proved to be an interesting and successful experiment. Opinions of the members in regard to this program will be greatly appreciated. It would seem to afford an opportunity for the informal discussion of problems vital to pharmacy and for the revelation of talent among our members which might not be brought forward under ordinary circumstances.

It was a pleasure to welcome five new members into the association. The pharmacy colleges of the University of Buffalo, Columbia University, Ferris Institute, Fordham University, and Long Island University should prove strong additions to our professional family. They join us at a time when we greatly need all possible talent in helping us to formulate the future activities and responsibilities of the association. We hope that they will at once feel at home among us and will assume their full responsibility without delay. They are most welcome.

Looking ahead to the coming year and to the future of the association we may do well to observe and appraise several developments at the last meeting.

President Muldoon recommended in his address that after January 1, 1942, no colleges be admitted to membership in the American Association of Colleges of Pharmacy unless it has previously been accredited by the American Council on Pharmaceutical Education. This recommendation was unanimously adopted by the members, and the by-laws are now so amended.

At the 1937 meeting it was decided that a committee be appointed to revise the constitution and by-laws so as to bring them in conformity with the standards for the accreditation of colleges set up by the American Council on Pharmaceutical Education. At the last meeting a committee, of which Dean DuMez was chairman, brought in such recommendations. It was at the suggestion of Dean DuMez that these suggested changes were allowed to lie on the table until the 1939 meeting in order that all of the members might have ample opportunity to critically study the recommendations involved. These suggested changes have been sent by the Executive Committee to each member college. It is hoped that the various faculties will carefully study them and be prepared to take action at the 1939 meeting without too great an expenditure of time.

The import of the action and contemplated actions referred to is, of course, that our members now seem to realize that the time has arrived for the American Association of Colleges of Pharmacy to recognize the American Council of Pharmaceutical Education as *the* accrediting agency for colleges of pharmacy.

The time and energy which we have in the past devoted to the inspection and accreditation of colleges will become of lesser importance and we shall be able to devote our full energy to the consideration of basic problems of pharmaceutical education. This will entail no new statements of purpose or any radical or profound change in our organization or procedure. It means that the members, and especially the officers, will be freer to apply themselves more fully and effectively to problems which we have always thought of as being basic and profound. Committee work will assume a greater importance and significance than it has ever before enjoyed. The association should suffer no loss of prestige, but should become more virile and significant than it has ever before been.

As we look forward to the coming year we see the above

challenge looming distinctly before us, and we hear Dean Wilson's challenge of "Dare we accept it?" ring in our ears. We hear also a very definite answer from our members coming back with a resounding "Yes."

Let us see to it that the coming year shall be not only equal, but definitely superior to the one which has just drawn to a close.—Ernest Little, Chairman, Executive Committee.

Pharmacy at the World's Fair

Next year New York and San Francisco will stage World's Fairs which will probably exceed in their elaborateness and general interest any previous expositions held in the United States. It is important that Pharmacy should be properly presented and represented at these outstanding exhibits of the progress in the arts and sciences. At Chicago and again at Dallas, Texas, in recent years there were scientific exhibits in which Pharmacy was properly represented. We have therefore gained experience in this activity and this experience should be drawn upon for the arrangement of a proper display, both at New York and San Francisco, portraying to the public an intimate view of what it is that pharmacy supplies in the quest for health and how it is done.

It is necessary in any project of this kind to understand what we mean by the term Pharmacy. Certainly it does not mean the patent medicine industry. It means the production, standardization and distribution of approved drugs. Whoever represents American Pharmacy in this activity should take an active part in the preparation and promotion of an adequate display at these two World's Fairs. The people of the United States and foreign visitors should not be fooled into believing that American Pharmacy consists largely of making and vending packaged medicines for self-medication.

It is disconcerting therefore to note considerable publicity in the trade press and in daily newspapers about the organization of a Pharmacy Exhibit which will use whatever may be available in the form of an historic and ethical background to foster the interests of the patent medicine business. If a patent medicine manufacturer wants to display his wares at the World's Fair, we suppose he has that privilege, provided the Fair has space to sell for that kind of activity.

However there is no good reason why the traditions and scientific background of an honored profession should be used as a front for this activity. Let us insist that Pharmacy and the Patent Medicine Business shall each be presented to the public in their true perspective and on their own merits. The American Pharmaceutical Association should take the lead in providing a proper portrayal of the profession at these expositions and it should have the support of all who want the public to gain a true impression of what Pharmacy means to our citizens.—Robert P. Fischelis in the *New Jersey Journal of Pharmacy*.

Publicity for Food and Drug Legislation

As a step toward better informing the people of Virginia with what is being done in state and federal food and drug and cosmetic legislation, the following letter was recently sent to all the Women's Clubs in the State, some 275 in number:

Virginia has recently made a very definite start toward much needed control of the manufacture, labeling, and advertising of foods, drugs, and cosmetics. At the last session of the General Assembly we were successful in having the enclosed bill passed. It became effective on June 21. Further, only recently President Roosevelt has signed a federal food, drug, and cosmetic bill for which we have been fighting for almost five years.

Women's Clubs are always interested in legislation designed to protect the public against fakers, especially those fakers whose activities are a menace to health. May we suggest that in planning your program for the next session you might consider a study and discussion of these new food, drug, and cosmetic bills for one of your meetings.

While neither the State nor federal bill is all that we had hoped for, we believe Women's Clubs throughout the country may have much influence in attempts to strengthen these measures at future sessions of the General Assembly and Congress.

If any further copies of the Virginia bill are desired, they may be obtained by addressing A. L. I. Winne, Room 105, State Office Building, Richmond. Your congressman will be glad to furnish you with copies of the federal bill known as S-5.

This letter went out on the stationery of the State School of Pharmacy, and was signed by the writer who is chairman of the Publicity Committee of the Virginia Section of the American Chemical Society. As indicated in the communication itself, a copy of the Virginia law as passed early this year is now in the hands of all of these clubs.

As pharmaceutical education improves throughout the country, and our pharmacy schools become more than mere

commercial enterprises, the conviction grows upon us that they are now in position to do genuinely constructive work in informing the public along many lines related to health. In fact, if pharmacy schools accept this opportunity as a real obligation, which we believe they should do, their influence in all health matters will be definitely felt.

This suggestion is being made through the *Journal*—probably read by more pharmaceutical educators than any other—with the hope that it may help them find a way to reach the public in other states with health information that would hardly get to them by any other method. Here, in Virginia, we are already being asked to help arrange programs for some of the clubs to which the general letter was sent.—Wortley F. Rudd.

Dr. Roy Bird Cook

The announcement by the University of West Virginia of the granting at the June Commencement of the honorary degree of Doctor of Laws to Roy Bird Cook was received with satisfaction by everyone who knows of the accomplishments of the recipient. When the writer asked Chancellor C. S. Boucher (formerly of West Virginia, now of Nebraska) if the degree was given Doctor Cook because of his accomplishments in pharmacy or because of his record as a historian, he was assured that it was for both. Chancellor Boucher, who is himself a distinguished historian of the current and ante bellum period of the South, remarked that Doctor Cook belongs to the class of contemporary writers who do not claim to be historians but have really done a better job at writing history in a popular way than the supposedly real historians have in a professional way. Furthermore, he did not hesitate to say that Doctor Cook was entitled to the honor because of his contributions to the specialized field of pharmacy. The National Association of Boards of Pharmacy is to be congratulated for placing the presidency of the organization for the coming year into the hands of Doctor Cook and the writer feels he is in a position to pledge to Doctor Cook the entire moral support of the American Association of Colleges of Pharmacy in the continuance of the joint effort of these two organizations to improve the quality of pharmaceutical education and service.

Rufus A. Lyman.

THE EDITOR'S PAGE

On another page of this *Journal* will be found two presidential messages—one a message of a president to a president and the other a message from a president to his people. As to the first message the Editor has his misgivings. He has a feeling that such a letter could never have been written by the President of the United States. He grants it might have been written by a secretary, not once, but twenty-five times removed from the President. Even so, it undoubtedly expresses the sentiment the President would himself give were it possible for him to do everything "in person". The text of the message could well serve as a guide for every individual druggist and for the profession of pharmacy as a whole. We are grateful to the President for it. The second message came out of the heart of a man who is the heart and soul of a drugstore in the heart of a great city. It rings with characteristic Lascoffian sincerity. It points the way to the dignification of the service pharmacy can render as a public health profession and it calls attention to the fact that if National Pharmacy Week falls short of this objective, it will be because we ourselves have failed to rise to the occasion. This is the time to bear in mind the greatest of all Lascoffisms—"It Can Be Done." There is a word of caution, however, the Editor would like to add. He has felt Pharmacy Week has been used frequently to sell more goods rather than pharmaceutical service to the public. First Aid Week has been used to sell more emergency material to motorists and Cancer Week has been used to sell more women to the surgeon. The only objective of Pharmacy Week is to sell pharmacy as a public health measure. I am sure Dr. Lascoff will agree with me when I ask the question—why not devote fifty-two weeks of the year to selling pharmacy to the people as a public health profession? This is exactly what Dr. Lascoff, himself, does at 1209 Lexington Avenue, New York City. To do that in my home town a lot of druggists will have to remove great displays of Kentucky's fine old whiskies from their store windows as well as a lot of other things that I do not need to mention here. But to make an honest sale that intelligent people will believe in, this has got to be done.

In President Byrd's address before the joint session at

the Minneapolis meeting he called attention to a statement which he said he recently read in the April issue of a journal published by the American Council on Education (I have not been able to find it in the April, 1938, issue of the *Educational Record*, the official organ of the Council) as follows: "Although the American Association of Colleges of Pharmacy has maintained standards of accreditation for about ten years, their standards have not been rigidly enforced and no school has lost its accreditation for failure to meet them." Then President Byrd goes on to say: "I doubt if this statement is entirely true, but I quote it to bring your attention to the need of higher standards. No educational agency would dream of printing such a general statement about medical schools." In the first place the quoted statement is not only not entirely true, it is as far from the truth as any statement could be. The American Association of Colleges of Pharmacy has never set up standards for accreditation. The function of the Association is thus expressed in the constitution: "The object of the Association shall be to promote pharmaceutical education and research." What the Association did do was to set up requirements for membership. If other institutions and organizations, or if the politicians have accepted these requirements for membership as their standards of accreditation for pharmaceutical institutions, that is no concern of ours. Furthermore, these standards of membership have been in force not "for about ten years" but for thirty-eight years and within the last decade six schools, four from the state of New York, one in South Carolina, and one in California have lost their membership because they did not wish to maintain those standards. I challenge President Byrd, or the American Council on Education, or any one else to find one single statement in that quotation that he made that is true. His reference to medical schools is amusing to a medical man who is as familiar with medical education in the last forty years as he is with pharmaceutical. The rankest commercialism I have ever known (except in educational surveying) I have seen in medical education. But that is another story. President Byrd should be reminded also that in the fight for the recent food and drug legislation, the American Association of Colleges of Pharmacy came out flat-footed and all alone and far in advance of all other pharmaceutical and medical organizations and demanded legislation that would protect the public against deception and fraud.

No one better than pharmaceutical educators themselves have realized the necessity of an accrediting agency for setting standards for pharmaceutical teaching institutions and when we asked aid from the great foundations that had given assistance so generously to the study of medical problems and the problems of other professional groups, pharmacy was refused. It was then we realized we had to be a lone wolf and with the cooperation of our own family group, the National Association of Boards of Pharmacy, the American Pharmaceutical Association and with generous advisory help and moral support from the American Council on Education, we have created our own standardizing institution: "The American Council on Pharmaceutical Education". This Council is now actively functioning. Although the organizations mentioned above have cooperated in the creation of the Council, the plan is the product of the mind of Dr. A. G. DuMez when he was president of the American Association of Colleges of Pharmacy and that organization has been the primary sponsor of the plan. I shall not boast, but I have a feeling of pride when I see the pharmaceutical group doing for ourselves that thing which medicine and the other professions have had done for them on other people's money. If one will study the accomplishment of the American Association of Colleges of Pharmacy in the improving of our teaching program over a period of thirty years, I believe he will find it parallels in attainment those in any other professional fields.

Word has been received of the retirement of Dr. Charles J. Fuhrmann after many years of active service at Howard University. He became connected with Howard in 1922 as Professor of Pharmacy. He was made Vice-Dean in 1926 and Acting Dean in 1937. Through his guidance, inspiration and courage the institution has prospered. By constant struggle he has converted totally inadequate quarters into modern well equipped classrooms and laboratories. He has done a constructive piece of work for Howard University, for the profession of pharmacy, and for the negro. May the years before him be years filled with satisfaction because of the things he has been able to accomplish in his field of work. We hope that he will continue to move among us in his quiet dignified way and that we may continue to have the inspiration of his unselfish life of service.

On August 22, at Stanton, Michigan, Fred S. Deno, the father of Dr. R. A. Deno passed away. What greater contribution to any type of human endeavor could a man make than the gift of a son? The sympathy of the entire Association goes to Doctor Deno and his two sisters. Many of us who have passed through similar experiences can bring them comfort by assuring them that their father is not dead. Through the years that are yet to come they will find that he is still their companion, lending the same helping hand that they knew in the years that have gone.

On July 28, 1938, at some point on the other side of the world, the Hawaiian Clipper went down into the sea, leaving upon the surface only a telltale streak of oil to mark its possible burial place. With it went Dr. Earl B. McKinley, Dean of George Washington University Medical School, a distinguished scientist in the fields of bacteriology, tropical medicine and public health. The last years of his life were devoted largely to the control of leprosy and his last ride was in that line of service. Of him, one of his co-workers has said, "My admiration for him was very deep and based upon the soundest information, personal contact over a long period and under various circumstances that tested the views and morals of every man involved." Dr. McKinley's contact with things medical was world wide and so was his conception of the problems of public health. He realized the importance of pharmacy in the public health program and as a member of the Executive Committee of the American Association for the Advancement of Science he was a vigorous supporter of the Subsection on Pharmacy. On a number of occasions when I was privileged to break bread with him and Dr. Henry B. Ward over a table in the Cosmos Club at Washington, I was amazed at his sympathetic understanding of the part that pharmacy should and could play in the conservation of public health. For such a man with such a world wide record of accomplishment for his fellow men, what could be more fitting when the day's work was done, than that he should sleep in the bosom of the Pacific with—"They that go down to the sea in ships, that do business in great waters." A memorial for Doctor McKinley will appear in the January number of this *Journal*.

Again, the privilege of paying tribute to a great man has been given to Dean Charles H. Rogers, who was not only associated with President Coffman for many years in educational work, he was also the President's close personal friend. When a tribute is written by such a competent authority, it would seem as if nothing else could be said. But the Editor is impelled to say something. He feels that he has a right to do so because he, contrary to the general belief, has viewed pharmaceutical activities in this country for thirty years, not as an actor in the midst of the fray, but as a fan on the side lines. From such a position he now proceeds to characterize the distinguished President of the University of Minnesota in the President's own words. Sitting on the bleachers this is what the Editor heard and it was said with all of the vigor of an Isaiah and all the earnestness of a Job: "Stop trying to measure the efficiency of a college of pharmacy by using a yard stick to determine the amount of air the dean gets in his office in an hour and turn your attention to the doing of those things that will increase the spiritual and intellectual qualifications of the teaching staff." And again: "I believe in change, but only in change that is shown to be right and desirable by the exact and searching methods recognized as standard and acceptable in scientific experimentation." And again: "I believe in that type of education that puts iron into the blood, lime into the bone, and organized knowledge into the minds of the youth of this generation." And again: "I like Nebraska. Nebraska plays good football. I want Nebraska to play better football. I do not want Nebraska to play too good football." As he said it, his face suffused with kindness and the answer to it was a roar from the throats of a thousand Nebraskans, and for that, all Nebraskans loved him. For such a man, what could be more fitting when the day's work was done, than that he should be permitted to lie down and go to sleep quietly as the sun sank into the Minnesota plain. There are lonesome days for the families of Doctor Deno and Doctor McKinley, and President Coffman, and for the rest of us who knew them—but tomorrow the sun will again shine even brighter because of the assurances that the Easter morning brought to a pagan world.

Rufus A. Lyman.

GLEANINGS FROM THE EDITOR'S MAIL

I have read with a great deal of interest the July issue of the *American Journal of Pharmaceutical Education* and appreciate many of the things that you said in your address entitled, "Trends, Past and Present, and the Needs of Pharmaceutical Education".

I am very much interested in the *Journal* and am anxious for its success but I have one suggestion to make, and that is that you select a cover that does not have such a billious appearance. I am sure that you have somebody in your art department who would be willing to advise you as to good color and type. I am making this suggestion in the interest of the *Journal* and not as a criticism.

C. O. LEE
Purdue University.

I thank you most cordially for your letter of June twentieth and for the copy of the *American Journal of Pharmaceutical Education* which arrived this morning.

The editorial on page 273 is especially interesting since I feel that in this country too there is a similar tendency for the medical profession to regard the pharmacy student as somewhat inferior to the student of medicine, but with the higher standard of training now demanded for qualification in pharmacy, this feeling is tending to disappear.

I have also noted the review on page 315 and have read with considerable interest several of the other articles.

HAROLD H. BARBER
University College Nottingham.

The last issue of the *American Journal of Pharmaceutical Education* has been received and I was particularly well pleased in the innovation of the listing of students presented therein who had received special honors and awards and scholarships during the year. I believe that such publicity is beneficial and encouraging to the students involved.

It has occurred to me that for the July issue each year it might be well to publish a list of master's theses and doctor's dissertations announced by the schools of pharmacy. Since all theses and dissertations are not published in scientific journals such a listing by our *Journal* should prove to be of value for the bibliographic standpoint and also gives readers of the *Journal* an idea of the graduate work that is being carried on in the various schools of pharmacy.

We have a partial listing published by the National conference on Pharmaceutical Research which, however, is not based upon the final title of the particular work completed. I offer this as a suggestion for worthwhile material that might be published.

HENRY M. BURLAGE,
The University of North Carolina.

I, for one, always enjoy the annual meetings regardless of where they are or how they are conducted. This feeling could only be the outgrowth of programs that are in the main wholly satisfactory.

I do feel that any effort toward condensing the Monday morning conferences into a general session is a mistake. The present system allows greater expression of ideas concerning the manifold interests of academic pharmacy. Functionally therefore, it should be maintained for its potential efficiency. If one or more of the sections falls down in attendance and consequently in effectiveness get after the men whose business it should be to attend. It is they who are at fault.

I am enclosing my check for subscription to Volume III of the Journal.

L. WAIT RISING
University of Washington.

One of the things that we liked about the Minneapolis meeting was the decision to come to Atlantic City next year.

One of the helpful features of the meeting was the mimeographed summary of the "Teaching of Biology" by Dr. Deno. Such reports are of a distinct value to an official delegate who is supposed to make an official report to his school.

The criticism that the American Association of Colleges of Pharmacy is entirely an association of deans, in that there is no place for the younger men, is to my mind no longer justified. Besides a large number of younger men doing committee work, at the Minneapolis meeting, several schools were officially represented by faculty members other than deans or department heads. The American Journal of Pharmaceutical Education has played no small part in giving the various Collaborators a feeling that they are an integral part of the Association.

There seems to be, however, a growing tendency toward the Association becoming more "education" conscious. Let us guard ourselves against becoming more interested in "grade-curves", etc., than Pharmacy.

GEORGE W. HARGREAVES
Alabama Polytechnic Institute.

I thought our Minneapolis meeting was a good one. It seemed to me that our attendance was the best I ever remembered and the general spirit and attitude of our members highly satisfactory.

ERNEST LITTLE
Rutgers University.

I am pleased with your success in securing new subscriptions. I believe that you will have little difficulty in securing subscriptions from those who have had the opportunity to read the Journal as it is the best pharmaceutical journal published in this country in my opinion. It contains more interesting articles and more news than all of the other journals put together.

A. G. DUMEZ
School of Pharmacy, University of Maryland.

I have no comment to make upon the meeting of the American Association of Colleges of Pharmacy that was held recently in Minnesota, except to comment favorably upon the recreation and entertainment that was provided for the benefit of the delegates at this meeting. I think this was of very high type and should receive the commenda-

tion of the entire group that attended this meeting.

I thought everything at the meeting was well handled, that the hotel did nicely in providing suitable rooms for the meetings, and that the program was not overcrowded.

P. H. DIRSTINE
State College of Washington.

May I add my compliment to the many you have already received on the excellence of your publication, "The American Journal of Pharmaceutical Education".

I would like to have an extra copy for our library, and am enclosing check for \$4.00 for an additional subscription for Dr. Walter R. Griess, 19 West Seventh Street, Cincinnati, Ohio, and I am sure that before long I will be able to send you several more.

ADOLPH D. FENNEL
Cincinnati College of Pharmacy.

Thank you very much for yours of the sixth and we are enclosing a check for \$4.00 and wish you would send us the American Journal of Pharmaceutical Education and also mail a copy to Harold F. Clark, a member of our faculty.

D. V. WHITNEY
Kansas City College of Pharmacy.

Thank you for your letter of September sixth and copy of the American Journal of Pharmaceutical Education. I consider the publication extremely valuable and informative and believe that each of our three departments will be gainers by having copies. In addition I want it in my office and in the library.

Will you please, therefore, enter five subscriptions for our College and forward bill for same.

HUGO H. SCHAEFER
Brooklyn College of Pharmacy.

I have read practically from cover to cover the July issue of the American Journal of Pharmaceutical Education. I believe the open frank way in which our problems are being discussed in this Journal is going to result in great good.

WORTLEY F. RUDD
School of Pharmacy, Medical College of Virginia.

We believe that you state the truth when you say that the American Journal of Pharmaceutical Education is the only journal dealing with the real problems of pharmaceutical education. We want to congratulate you on the splendid work that you are doing in the line.

E. O. KAGY
Des Moines College of Pharmacy.

It may be of interest to you to know that our Board of Governors has appointed as Acting President of our University, Professor Charles E. LaWall, and that in his early education he very much desired to take up the study of Pharmacy.

J. LESTER HAYMAN
West Virginia University.

The July number of the Journal arrived and I have gone through this number carefully. I am very much pleased with it. There are a number of articles in this one issue in which I have a very deep interest. May I congratulate you on the "Editor's Page".

GEORGE L. BAKER
College of Pharmacy, University of Toledo.

I would inquire if you would be so good as to present to the National Library of Science and Technology at the Science Museum the "American Journal of Pharmaceutical Education".

In addition to its comprehensive sets of literature on cognate subjects, which are not available in specialized libraries, this Library contains an exceptionally extensive collection of works on pharmaceuticals.

Ten thousand scientific and technical periodicals are received regularly in the Library. All publications added to the Library are recorded in its Weekly Bibliography of Pure and Applied Science, which has a wide circulation among research workers and institutions.

H. SHAW, for the Director
The Science Museum, South Kensington London S.W.7.

In my opinion the Minnesota meeting was one of the best I have attended. The only criticism I have to offer would be an attempt to obtain greater publicity in the local newspapers during our convention meeting so as to acquaint the public with part of the activities of the Colleges of Pharmacy. The Minneapolis papers gave us little or no publicity.

In my opinion the discussion regarding socialized medicine was a most outstanding feature of the program. The pharmacists must take a definite stand if we are to have socialized medicine in order to be recognized with the public health service, medicine, and dentistry. Should the pharmacists calmly stand by and permit rules and regulations to be drafted. There is a possibility of drugs being dispensed as they are in the navy by unqualified nonregistered individuals. We must maintain control of our own profession. Dean Jordan's plan is worthy of consideration.

A. O. MICKELSEN
North Pacific College of Oregon.

In seeking comments on the Minnesota meeting, Professor Jongeward has this to say, "Dr. Byrd's address is the best I have heard for some time. I want several copies. Reports should be abstracted, not read in their entirety. The sectional meeting should be more for the exchange of ideas and teaching problems and how they have been solved by the instructor. They are not the place for scientific papers."

My suggestion for the next annual meeting is that the Plant Science Seminar be held for three or four days just preceding the American Pharmaceutical Association Convention and the National Conference of Pharmaceutical Research be held during the convention week (early in the week, if possible) before it dies a natural death.

I was particularly impressed at the Minnesota meeting with the smooth manner in which it was carried on, from the business meetings to the programs for the ladies.

Our Rho Chi initiates last year were Wilbur Benson, Tupper Howden, James Irgens, Sidney LeBien and Doris Stinson.

KENNETH REDMAN

North Dakota State College.

Without any coercion I have attempted to drum up a little business from our faculty. We have seven full time members of what may be considered the non-academic or professional pharmacy staff. Two of us are already on the list of subscribers to the Journal. I enclose subscriptions from four more. The other fellows will subscribe some time.

We were pleased with the attempts to have two panel discussions; one in the pharmacology teacher's conference and one in the second general session. We suggested this form rather than the formal paper style and we think it has possibilities. We were impressed with the general arrangements. Everything seemed to click and we felt that there was a better spirit about than sometimes prevails. The entertainment features were especially satisfactory. They were on a high plane. The outside speakers were better than usual. Dr. McConnell and President Byrd were excellent. We believe that the most valuable contribution of the recent meeting will come as a result of the substitution of panel discussions for formal papers. We are sure that each dean has administrative problems that are perplexing to other deans as well. It would be extremely helpful to us if a session could be arranged for administrative officers where we could exchange ideas and no doubt benefit by the experiences of others, just as the teachers benefit from their conferences.

A. B. LEMON

School of Pharmacy, University of Buffalo.

We are always looking for opportunities to help the pharmacist who is professionally minded. I believe we have found a new possibility of giving suggestions to such pharmacists who attend the National Convention of the American Pharmaceutical Association by the innovation which was made this summer of the Lascoff-O'Brien breakfast for professional pharmacists.

I was present at the breakfast and was greatly impressed with the large number who thought it important enough to get up an hour or two earlier so that they might attend the meeting before going to the regular sessions. It was gratifying to see the large number present who conducted retail pharmacies of the professional type. They were an enthusiastic and interested group. We met in an informal way about the breakfast table. Things of interest to the retail pharmacist which were taking place in various parts of the country were discussed.

I feel that this is a real opportunity for us to meet many of the outstanding professional pharmacists in the country. Judging from the number of retail pharmacists who came out for the first meeting, they are also interested in the possibilities that such an exchange of thought can bring to them.

Dr. Lascoff and Mr. O'Brien are to be congratulated for starting this movement and I sincerely trust that it will be continued in the future.

GEORGE C. SCHICKS

Rutgers University, College of Pharmacy.

I have written Dean Rudd that, in my opinion, his article "An Open Letter to Recent Pharmacy Graduates" published in the August issue of the *Virginia Pharmacist* is so well written that it would bear reproduction in some form or other so that every 1938 graduate of every school and college of pharmacy in this country would receive a copy. Probably it would not be a bad idea to reproduce it in the *American Journal of Pharmaceutical Education*.

W. F. SUDRO
North Dakota Agricultural College.

I enjoyed the meetings at Minneapolis very much. While there it occurred to me that a registration board available to those present (similar to the one at the American Association for the Advancement of Science meeting at Indianapolis) would be helpful.

LEROY D. EDWARDS
Western Reserve.

I know that you are distressed over the death of President Coffman, for I knew of the very high place he held in your opinion and regard. His passing constitutes a loss to education in general throughout America in which pharmaceutical education will suffer proportionately.

ROBERT C. WILSON
University of Georgia.

I have always assumed the reaction from the "young men" to be more or less of a rumor but when you request me to comment upon it in a formal letter to the *Journal*, I am forced to believe that it must have some concrete basis and I have therefore given some thought to the possible motives for such a reaction. These might be as follows:

First, a desire on the part of the young men to see their ideas put into operation. Individuals of this group may feel that the only way to do this is by holding office in the Association. If this is the case I cannot help but observe that election to office is by no means the only way of exerting influence. There has always been a ready reception of worthy ideas and the unworthy ones are bound to fail regardless of who suggests them. Second, there may be a feeling that the "older generation" has been too long in power and certain ones may hanker for a hand at the wheel because of the personal prestige and glory attached thereto. One would hesitate to accuse any individual of the Association of this, although desire for personal prestige is a powerful motive. I think that any individual in the Association would put the good of pharmacy before personal gain. Third, there may be the feeling that the "older generation" in its intense activity of the past years has been negligent in its duty of preparing successors who are adequately trained in the technique of running the Association and are sufficiently imbued with its ideals.

Of these motives I believe that only the third carries weight. If we assume that it is the cause of this reaction, the problem then confronting the Association is, "How to train the young men for the duties which in the course of time they must inevitably assume." I do not believe that this can be done alone by giving to the young men offices in the Association. For example—I can see little permanent value to putting a young man into the office of President. Neither do I believe that this

can be done alone by allowing the young men to work on committees. This is of value both as training and as a proving ground, but it must be remembered that much of this work has been engineered in its broader aspects by the older generation. I think that young men feel the need of something more. They feel that they should be let in on the conferences where many of the affairs of the Association are decided. I do not know exactly how this can be accomplished. Perhaps a panel discussion on the objectives of the Association and the methods of achieving them would be helpful if it were carried out by members of both groups. I am afraid, however, that the very nature of any society makes it imperative that for efficient operation a small group assume more or less autocratic control. I think that when the present "young men" become the "old men" they will realize this and will in turn be confronted by this same reaction from the generation now just appearing.

JAMES M. DILLE

University of Washington.

I have read and reread your letter to Dr. Dille in an effort to find an inkling of what the dissatisfaction you speak of might be, and who the dissatisfied actually are.

It is my feeling that the problem is neither as great nor as large as you probably believe. Without trying to set up as a psychic I would venture the statement that you have felt more keenly than necessary less-than-half serious conversations by persons commenting on the Association simply in order to be talking. You have an unusually deep sense of personal responsibility for the organization and as a result react rather quickly to small talk uttered without thought and which at first glance might appear derogatory to its conduct.

It is undoubtedly true that some of the young men who are faithful in their support of the Association have felt that they should have more voice in its proceedings. Several factors worked to substantiate the validity of their claim. Briefly they can be summarized in the one statement that all young men need a feeling of true partnership in the work to make the undeniable financial sacrifice of attending meetings worthwhile. This kinship is fostered by official recognition of their presence. Parenthetically, it is my deep conviction that they should have served a proper apprenticeship at routine Association tasks before this recognition is granted. But the knowledge that they will then be permitted to sit in as junior members of the committees and bodies who shape the policies and destiny of the organization should be theirs. Some way should be taken to show them that even though they have not executive offices in colleges it is recognized that they have executive and administrative talents worthy of use by the American Association of Colleges of Pharmacy. By and large the Association has shown that it appreciates this belief and has acted fairly and even at times too generously in the matter of recognition towards its younger members.

As the various faculties continue to improve in academic caliber because of better educational facilities offered the younger men there will come a time when the deans will have surrounding them associates in every way as capable as themselves. It is then that a real problem in management will be presented the Association and real rumblings will be heard unless the policy of keeping the body strictly a dean's

organization from an administrative point of view is broadened. That situation has not yet materialized, but it will.

Now that I am, in a manner of speaking warmed up to the task, I could elaborate at some length on what I believe to be the ideal way to bring up and manage the younger men who will always be coming along to get the best out of them in the interest of both themselves and the Association. But even as I write this I realize that much of what I would say would simply be restating a policy being carried on today by those directing the body. Therefore, speaking only for myself I see little in the way of serious criticism and much good to say of the American Association of Colleges of Pharmacy as it is now run.

L. WAIT RISING

University of Washington.

To me the outstanding features of the Minneapolis meeting were Dr. Byrd's address, Dr. Swain's several contributions and the general improvement in regard to the educational interest, originality and sound philosophy embodied in this year's crop of papers.

My only regret is that it is impossible to attend all sessions. My sole criticism is that we seem to be rapidly drifting towards a two-week session. Some study should be given to ways of shortening and simplifying our annual meeting.

ROWLAND T. LAKEY

Wayne University.

I think the officers of the American Association of Colleges of Pharmacy should be those who would contribute the most constructive ideas and be willing to give most freely of their time for pharmaceutical education. I do not believe that those who "run" these meetings should necessarily be the young men or the older men, but selection for office should be based on past contributions, service and ability at these meetings or those of the American Pharmaceutical Association. I have heard comments that the younger men do not have a voice in the affairs, but am wondering if these critics are not a little too ambitious for themselves. It would be a generous move on their part to assist those in office or those who now have an active part in the Association, as to how improvements could be made. If their work is meritorious, I feel certain they will receive recognition. Dille is a young man, a most able one in my opinion, and am delighted that he has a hand in the affairs. I would consider the 1938 and 1939 officers of the Association fairly young men, with a great deal of ability. It appears to me that those responsible for the election of its officers have done a fine job.

FOREST J. GOODRICH

University of Washington.

The 1938 meeting of the American Association of Colleges of Pharmacy was outstanding in several respects. During the past few years interest in the teachers' conferences had apparently declined to an alarming extent. There was especial criticism concerning the conferences of 1937 in the pages of this Journal. However, any lack of interest in the past was more than compensated for this year by the splendid attendance, well prepared and excellently delivered papers, and spirited discussions in all of the teachers' conferences at the Minne-

apolis meeting. In view of past performances, President Muldoon's recommendation in his address that the conferences be consolidated next year was entirely justified. Nevertheless, the high degree of excellence of this year's programs made this drastic step unnecessary, and the resolutions committee was thoroughly justified in recommending that this proposal be rejected.

President Muldoon's address was well planned, excellently delivered, and thought provoking throughout. He had something to say, and he said it without verbosity or bombast. It was an entirely commendable address. As a presiding officer, Dean Muldoon conducted the meetings with dignity, courtesy, and dispatch. While this is not unusual, it did seem that the numerous committee reports were received and disposed of with remarkable rapidity, and yet with no appearance of undue speed.

The panel discussion of so timely a subject as socialized medicine and its possible effects on several of the phases of pharmacy was an innovation which was especially interesting. While it might not be advisable to incorporate a panel discussion as a regular feature of future conventions, it is hoped by many that the idea may at least be used occasionally.

The joint annual dinner of the National Association of Boards of Pharmacy and the American Association of Colleges of Pharmacy was not so well attended as it should have been. In the opinion of several who were present, Professor McConnell's address at this dinner was among the most valuable of those given at the convention. It is hoped that it will be published in the *Journal*. Pharmaceutical educators should be interested in Professor McConnell's ideas concerning the relation of professional and general education. These ideas might be helpful sometime in the future in formulating a plan for the incorporation of more general education into pharmaceutical curricula.

JUSTIN L. POWERS
University of Michigan.

President Robert M. Hutchins of the University of Chicago has announced that Edward Benes, former president of Czechoslovakia, has accepted an invitation to become a visiting professor at that University. He will lecture under the Walgreen Foundation which provides for the study of American institutions. It should be kept in mind that this Foundation, a fund amounting to \$550,000.00 was established by Mr. Charles R. Walgreen, a druggist of Chicago, and given to the University for the support of a chair for the teaching of principles fundamentally American. With this we are sympathetic, and we have a hope that Mr. Walgreen and philanthropically minded men like him, who have made their wealth in the drug industry, will in the near future give funds for the benefit of pharmaceutical education and research. What philanthropy could have a more worthwhile objective!

NOTES AND NEWS

At the June commencement of the St. Louis College of Pharmacy, members of the senior class receiving honors for scholarship were Nolan DeWaskin, William Lake Hiner, and Frederick Joseph Kirchmeyer.

The following persons have recently been elected to Rho Chi at Western Reserve University: Carl A. Swisher, Byron E. Emery, Edwin J. Rathbun, Roger W. Marquand, Samuel S. Teitelbaum, and Clarence H. Egbert. Dr. Leroy D. Edwards has been elected treasurer of the Western Reserve Chapter of the Society of Sigma Xi. Dean Edward Spease spoke recently before the section on "Standards of Hospital Pharmacy Service" at the Catholic Hospital Association of the United States and Canada at the meeting in Buffalo.

Dr. Charles J. Fuhrmann, Vice Dean of the College of Pharmacy of Howard University from 1926 to 1937 and Acting Dean during 1937-1938 has retired from active service. Professor Chauncey I. Cooper of the Department of Pharmaceutical Chemistry has been appointed Acting Dean in the place of Dr. Fuhrmann.

Examinations of pharmacists for the Medical Administrative Corps of the regular army are announced for November 14 to 18, 1938. Application blanks may be obtained by addressing the Adjutant General, War Department, Washington, D. C. Applications will not be considered after October 29, 1938.

Dr. Merlvin W. Green, who for the past two years has been connected with the Mellon Institute of Industrial Research, has accepted a position as biochemist at the Cincinnati College of Pharmacy, effective September first.

Angelina Sison was graduated last March from the College of Pharmacy of the University of the Philippines with the degree of Bachelor of Science in Pharmacy, magna cum laude. She was also the recipient of the University President's medal and of the Pharmaceutical Association's medal. Miss Sison is now doing graduate work. The students receiving the highest scholastic rating in the second, third and fourth years were Flora Sta. Juana, Nienes Sandoval, and Paraluman Cruz, respectively. It is an interesting fact that all honor students in this year's class were young women. Lieutenant Colonel Emiliano M. Panis, M. D., has been giving a course of lectures on pharmaceutical jurisprudence and ethics during the current year.

For the twelfth consecutive year the Board of Trustees of the Oregon State Pharmaceutical Association educational fund has assisted worthy students of the Oregon State College, School of Pharmacy by granting loans. This educational fund was established in 1925 at the time the pharmacy building was dedicated. Funds are derived from subscriptions from druggists throughout the state. At the present time the fund is valued at \$11,425.00. Since its establishment a total of 110 loans have been made. The business affairs of the funds are conducted by a board of trustees selected from the membership of the association.

Dr. Carl L. A. Schmidt, Dean of the College of Pharmacy of the University of California Medical School, has been named a member of

the committee on the chemistry of proteins of the National Research Council.

At the annual meeting in Minneapolis of the National Council on Pharmaceutical Research, the chief features were reports on research progress in the pharmaceutical sciences and a symposium on digitalis. The new officers of the Council are William J. Husa, Chairman; Heber W. Younken, Vice Chairman; John C. Krantz, Jr., Secretary; Fritzgerald Dunning, Treasurer. George D. Beal, Francis E. Bibbins, and James C. Munch constitute the executive committee.

At a recent session of the Health Organization of the League of Nations, a commission was appointed to carry out the work of the Brussels Conference for the establishment of standards for potent drugs. The United States representative is Dr. E. Fullerton Cook, Philadelphia College of Pharmacy and Science. This International Commission plans to compile a list of the more important medicines used throughout the world and to invite the respective National Pharmacopoeial Commissions to prepare model monographs, which, when finally approved, will be presented to the Pharmacopoeial Commissions of the world with the hope that they may assist in bringing about a greater uniformity in titles, definitions, descriptions, tests for identity and purity and methods of assay.

The West China Union University at Chengtu, Szechwan Province, China, has received a Rockefeller Foundation grant of \$35,000 for new buildings and equipment for its hospital. Dr. Edwin N. Meuser, Professor of Pharmacy, has been in the United States and Canada on leave for several months to acquaint people here with the needs of the institution.

Mr. Louis Manna, a graduate of Columbia University, College of Pharmacy, has been awarded the Plaut Fellowship for 1938-1939. He has chosen the University of London as his place of study.

Two errors were made in the July number of the Journal. On page 445 the heading "The State University of Washington" should read "The State College of Washington" and on page 446 the heading "Ohio State University" should read "The State University of Iowa". Also the omission of the name of the author of "The Pedagogic Rebel" (page 447), Dean Ivor Griffith of the Philadelphia College of Pharmacy and Science, was a printer's oversight.

The Rho Chi prize for the highest Scholastic Average in the first year class last year at the State University of Iowa, College of Pharmacy, went to Irwin J. Lage.

Dr. Frank L. Eversull, formerly President of Huron College, has been elected president of North Dakota State College. Dr. Eversull, vice president of the North Central Association, is deeply interested in pharmaceutical education. Dean W. F. Sudro, who was a charter member of the Northwest Pharmaceutical Bureau, presented a paper at the Fargo fair trade meeting recently.

Mr. Ingo Maddus, formerly of the University of Nevada, has been appointed to a professorship in mathematics at the Philadelphia College of Pharmacy.

The College of Pharmacy of the University of Washington has received a grant for the construction of a greenhouse. The structure, besides the usual features, will have adequate storage space for harvested plants, a sterilizing room, a work shop, and a research laboratory.

The Ebert Prize for 1938 was awarded to Dr. F. F. Johnson for his work on quinine salts. Mr. Arthur W. Steers, who won the Fairchild Scholarship for 1938, will continue work at the University of Washington, studying the effect of age on the vitamin content of salmon. Since the scientific interest in the nature of dermatological preparations is increasing, the University of Washington has added a course in the manufacture of cosmetics.

Mr. Rex P. Clayton, a graduate of the College of Pharmacy of the University of Idaho, has been added to the faculty of that institution taking the place of Mr. E. L. Beals. The enrollment at Idaho shows an increase of 23 per cent. Professor E. A. Swinyard promises a 100 per cent subscription list from Idaho for Volume III of the Journal beginning January, 1938. All other collaborators take notice.

Dr. Charles F. Poe, College of Pharmacy, University of Colorado, was recently reappointed to the Colorado Board of Basic Science Examiners and reelected president of the Board at the September meeting. Dr. Bartlett Dewey of the Department of Chemistry of the North Pacific College of Oregon was engaged in research at the University of Colorado during the past summer. Scholarships established by the Colorado State Board of Pharmacy and by the Colorado Pharmaceutical Association have this year been awarded to Thelma J. Zeitler and Robert L. Toon and to Frank Buskerk and Dorothy Crowell, respectively. The Colorado Drug Travelers Association has established a loan fund to assist worthy students of the College of Pharmacy.

Dr. Frank J. Slama has been advanced to the rank of Assistant Professor of Botany at the School of Pharmacy of the University of Maryland. Mr. A. Wayne Ruddy, a graduate from the College of Pharmacy of the University of Nebraska and with a master's degree from the Graduate School of the same institution, is the new H. A. B. Dunning Research Fellow and laboratory assistant in pharmaceutical chemistry. Mr. Robert E. Thompson and Walter C. Gakenheimer, both 1938 Maryland graduates, have been appointed laboratory assistants in the departments of Pharmacology and Pharmacy, respectively.

The Lilly Foundation of Indianapolis has established a fellowship at the College of Pharmacy of the University of Michigan to promote and to support research in synthetic drugs. This year the holder of the fellowship is Charles E. Mitchell. The Frederick Stearn Fellowship for the current year has been awarded to John B. Data, and the Upjohn Fellowship to Mitchell F. Zienty. Undergraduate tuition scholarships for excellency in academic attainments have been granted to Victor J. Gribas, Mr. Elaine Norris and Rex C. Wilder. The 1939 University lecture sponsored by the College of Pharmacy will be given by Dr. Marvin Thompson on the Chemistry and Pharmacology of Ergot.

One of the features of the exhibits in the Health Building at the Indiana State Fair was a pharmaceutical educational display sponsored by the Indianapolis College of Pharmacy. Mr. Thomas May, a graduate of the University of Indiana and a trained librarian has been engaged on a full time basis for the College of Pharmacy library. Mr. D. W. Lee, a 1938 graduate has been granted a scholarship at the University of Florida. The Phi Chapter of Lambda Kappa Sorority was installed on June 4 by Mrs. William R. Collins of Chicago. The registration at Indianapolis College this year shows an increase of twenty per cent over that of 1937.

Professor Ernst T. Stuhr, in charge of the Department of Pharmacology and Pharmacognosy of the School of Pharmacy, Oregon State College, has been reappointed a member of the Committee on Pharmacognosy and Pharmaceutical Botany of the National Research Council. Professor Ernest L. Beals, for the past eight years a member of the staff of the University of Idaho, has been appointed Assistant Professor of Pharmacy at Oregon State College, taking the place of Dr. F. A. Gilfillan, recently selected Acting Dean of the School of Science. Dean Ziefle is preparing a history of pharmacy in Oregon covering the last half century period, for the golden jubilee of the Oregon State Pharmaceutical Association, which will be celebrated in Portland during July, 1939. The School of Pharmacy is making a collection of antique drug-store materials for exhibit at the convention. Later these will become a part of the School of Pharmacy museum. Ronald G. Esson has been awarded the Blumaner-Frak scholarship. This scholarship is given each year to the member of the junior class making the highest average in a competitive examination. Frederick A. Fuhrman, 1937, has been added to the staff of the School of Pharmacy. Since graduation, Mr. Fuhrman has been an exchange student through an arrangement made by the Beta Theta Pi fraternity with the Deutscher Akademischer Austauschdienst in Berlin. He also spent six weeks traveling in Germany and Italy. The freshman class at Oregon State shows an increase of twenty-seven per cent over the 1937 attendance.

Fordham announces the opening of a new laboratory for applied physiology and pharmacology in the Pharmacy building. Dr. Leonard J. Piccoli is in charge of the laboratory.

Mrs. Nellie P. Watts, who has until recently been assistant to the medical director of the Calco Chemical Company, has been appointed graduate assistant in pharmacognosy and pharmacology at Western Reserve University. Byron E. Emery and Edwin J. Rathbun of the University of California have been reappointed graduate assistants in hospital pharmacy for the year 1938-39. Julius A. Gerlach, a member of the class of 1943, has been awarded, by examination, a tuition scholarship for the present school year.

Dr. Paul J. Jannke, formerly of the University of Wisconsin, is assayist and research worker in the pharmaceutical manufacturing plant of the Kremers-Urban Company of Milwaukee.

Mr. Herbert F. Lefevre, 1938, University of Buffalo, School of Pharmacy, has been granted an American Pharmaceutical Association Fellowship. He will study at Purdue.

A new three hundred thousand dollar Pharmacy-Chemistry building is under construction at the University of Montana. It will be ready for occupancy by September, 1939.

Dr. Richard A. Deno, formerly of the School of Pharmacy of the Medical College of Virginia, has taken up his work as Assistant Professor of Biological Sciences at Rutgers University, College of Pharmacy.

The library of the Connecticut College of Pharmacy, which now contains approximately seventeen hundred volumes, has been moved from the main building to larger and more modern quarters in the annex. Improvements in the library include a reading room with a full time librarian in charge. During the summer months members of the faculty pursued courses of study as follows: Professor Horace J. Fuller at the

University of Western Ontario; Wallace F. White, Instructor in Biology, at the University of Indiana; Nicholas W. Fenney, Instructor in Pharmacy and Walther Williams, Instructor in Chemistry, Albertus College, New Haven; and Miss Josephine Izzo, Assistant in Biology, at the State Teachers College. With the opening of the fourteenth annual session the school year began with an enrollment of one hundred and sixty students, fifty-six of the total number being freshmen. Rev. Dr. Theodore A. Fischer, pastor of the Church of the Messiah, New Haven, died September 23, after a short illness. Dr. Fischer had long shown a keen interest in the welfare of the College and in his death the Board of Trustees has lost a valued member.

Mr. Turner H. Dennard, a graduate of the College of Pharmacy of the University of Minnesota, has been appointed to an instructorship in pharmacy in the College of Pharmacy of Howard University at Washington. Wendell H. Howard was the medal winner for excellency of scholarship in the 1938 class.

At the University of Georgia plans are being formulated to reconstruct two floors in one of the older buildings on the campus to house the School of Pharmacy. The total floor space will approximate 10,000 square feet and will take care of the work very comfortably until a new building can be constructed within a few years. It is planned to get the reconstruction under way soon so that the new quarters may be occupied before the end of the present session. Mr. W. T. Sumerford, Professor of Pharmaceutical Chemistry at the University of Georgia School of Pharmacy, will resume his teaching duties in October after a leave of absence for a year to complete his doctorate at the University of Maryland. During the past year a survey of the state of Georgia for medicinal plants has been carried out through the School of Pharmacy in cooperation with the College of Agriculture of the University of Georgia by Dr. Robert S. Justice. The results being obtained are of considerable interest and as the work progresses it is expected that a bulletin will be forthcoming.

On September 20, in the new Union Building at the University of Nebraska a dinner and reception was given by the faculty of the University to the new Chancellor, Dr. Chauncey S. Boucher. Seven hundred members of the University family attended. Dr. R. A. Lyman, senior dean of the University, presided. Mr. Stanley D. Long, a retail druggist and president of the Board of Regents presented Doctor Boucher to the faculty and in the course of the presentation Dean Lyman read two letters which had been received congratulating the University of Nebraska for having obtained the services of Doctor Boucher. One letter was from Dean J. Lester Hayman of the College of Pharmacy of the University of West Virginia and the other was from Dr. Roy B. Cook, secretary of the Board of Pharmacy of the state of West Virginia. It might appear that it was a pharmacy affair, but it was not planned that way. In a sense it was almost prophetic. It was just thirty years ago that the Regents of the University decided to introduce pharmaceutical training on the campus and Doctor Lyman was chosen to direct the work. The instructions which Chancellor E. Benjamin Andrews gave to Doctor Lyman consisted of one brief statement: "Young man, your chief function in this University is to put pharmacy on the map." Perhaps Dean Lyman is justified in getting some satisfaction at the reception to Chancellor Boucher.

MISCELLANEOUS ITEMS OF INTEREST

A MEMORIAL

LOTUS DELTA COFFMAN

At sunset on September 22, 1938, Lotus Delta Coffman, fifth President of the University of Minnesota, slept peacefully away. A great leader of men had been called to his reward.

Lotus Delta Coffman was born in Salem, Indiana, on January 7, 1875. After attending the Indiana State Normal School, he was graduated in 1906 with the B. A. degree and in 1910 with the M. A. degree from Indiana State University. The degree Doctor of Philosophy was conferred upon him by Columbia University in 1911. Dr. Coffman came to the University of Minnesota in 1915 as Dean of the College of Education, in which capacity he served until 1920 when he was named President. On December 28, 1899, he married Mary Emma Farrell of Paoli, Indiana. Two children, Mrs. Catherine Farrell Knudtson and William Mansfield Coffman, both of Minneapolis, were born to them.

The honorary degrees that were conferred upon him, together with other distinctions, are testimony of the universal recognition of his contributions to education, to American thought, and to humanity; all of which showed the fullness of his life.

As an educator, he stood out among his colleagues. His life had been dedicated not only to the study of current problems of higher education but also to our entire educational system and its relation to economic and social needs. He believed that by a more perfect coordination of all educational agencies young men and women would go forth into the world with a greater appreciation of the good things in life, and with a greater capacity to think rationally and clearly upon problems with which they would be confronted.

As an administrator, he was characterized by his directness. He shunned irrelevancy, was intolerant only of intolerance, and liked to deal with facts, not fancies. He had visions of a greater service for his university. Under his leadership, no institution could help approaching its ideals.

As a man, some of us had the privilege of knowing him well. Fair play characterized the man in his recreation as it did in his work. He could laugh at his own misplays but was always ready to give a word of encouragement to those who faltered. He shouted with joy at the forty-foot putt that went down and was proud of a fair shot that brought him his quarry. He was a sportsman in the truest sense of the word.

By President Coffman's death, pharmaceutical education lost a real champion. He believed that a high grade pharmaceutical service was an essential part of the health science picture and he was always ready to support those educational projects that could be shown to be contributory to the better training of prospective practitioners. As he once remarked: "Pharmacy is an ancient and honorable profession. Too long have its practitioners sat upon the doorstep of medicine. I cannot see why, in the near future, men of medicine should not sit upon the doorstep of pharmacy—there to learn from its teachers and researchers much that will contribute greatly to their work in alleviating the sufferings of

mankind." He knew more about pharmaceutical education than one at the head of a large institution could usually know. He knew its history; he knew of the trials and tribulations connected with the birth of a new era in pharmacy; and he subscribed to its idealistic objectives. "By your works shall ye be known," was his challenge and, because of his belief in our profession, he inspired us with a pride in the dignity of our calling, taught us to be humble before its greatness, and created in us a determination to uphold its ideals.

Charles H. Rogers.

Messages from Two Presidents

The White House
Washington

Hyde Park, New York
September 8, 1938

My dear Dr. Lascoff:

I commend the observance of "National Pharmacy Week" in its purpose to stimulate greater health-consciousness among the people through cooperation with dependable druggists.

The pharmaceutical profession has an opportunity and a responsibility for constructive leadership in promoting the highest ethical standards—standards which make service the yardstick of success and confidence the guiding influence of the public in their pursuit of health.

I bespeak success for "National Pharmacy Week".

Very sincerely yours,
Franklin D. Roosevelt.

Dr. J. Leon Lascoff,
President,
American Pharmaceutical Association,
1209 Lexington Avenue,
New York, N. Y.

A Pharmacy Week Message

J. LEON LASCOFF

As president of the American Pharmaceutical Association I am calling upon the pharmacists of this country to wholeheartedly cooperate in making National Pharmacy Week a splendid success. This great effort in behalf of professional pharmacy will be observed from October 16th to October 22nd, and I am particularly interested in this observance.

National Pharmacy Week was established fourteen years ago for the specific purpose of uniting pharmacists in a special effort directing attention to the great public health significance of the retail drug store. As its founder, Dr. Ruth, so well said, "Public health must be the keynote." It was felt that such a plan would contribute

greatly to giving Pharmacy its rightful place in public esteem. It was believed that Pharmacy would gain much from having the public regard it from the standpoint of its intrinsic professional service and of the importance of the drug store as a public health station.

Few callings touch the public welfare so vitally as Pharmacy. The pharmacist is called upon, day and night, to make available the drugs, medicines, and medical supplies upon which public health so largely depends. Many of these products are extremely dangerous and must be dispensed by competent and skillful hands, and with dependable advice.

On this account, the pharmacist is required to undergo a stringent period of professional training and to satisfy the state that he is competent to serve the public adequately and safely. Every time a pharmacist is called upon to fill a prescription he deals in a very vital way with health and happiness. Events of real human interest are routine affairs to pharmacists as they pursue their daily work. All of this affords a dramatic background from which to make the drug store stand out as something fine and something essentially different from other institutions on the streets of our towns and cities.

I believe that National Pharmacy Week is sound in principle and that nothing but good can come from calling attention to the professional function and service of Pharmacy. It is, perhaps, too much to ask every pharmacist to emphasize the professional aspect of his store at all times but certainly it is not too much to ask that he devote one week out of the year to a special effort to present Pharmacy to the public in the most effective manner.

If National Pharmacy Week has failed to serve the high purpose for which it was intended it is because the pharmacists of the country have not cooperated in making it succeed. It is to be forever kept in mind that the public appreciation of Pharmacy can never rise higher than our own, and that our failure to reflect its professional character is certain to result in failure on the part of the public to value Pharmacy at its true worth.

It is because I think National Pharmacy Week is sound in principle and in our interest as well as the public that I very earnestly call upon all pharmacists to recognize their responsibility in the matter and to do everything possible to make National Pharmacy Week serve its purpose. Window displays, interior displays, public addresses, radio addresses, newspaper articles, all aimed at the essential service which Pharmacy renders, are bound to create a sounder appreciation on the part of the public and, in due course, to give Pharmacy that place in public estimation which its responsibility so clearly warrants.

If National Pharmacy Week falls short of its objective, it will be due to no other cause than that we ourselves failed to rise to the occasion.

Program, Subsection on Pharmacy (N₂)

American Association for the Advancement of
Science, Richmond, Virginia, December, 1938

A Symposium on the Glycols

1. The Chemistry of the Glycols—Dr. Frank C. Whitmore, President American Chemical Society.

2. The Pharmacology of the Glycols—Dr. H. O. Calvary, Chief, Division of Pharmacology, Food and Drug Administration, United States Department of Agriculture.

3. The Industrial Application of the Glycols—Mr. H. B. McClure, Carbide and Carbon Chemicals Corporation.

A new departure is being planned by the program committee consisting of Dr. Glenn Jenkins, Dean Edward Spease and Dean W. F. Rudd, Chairman. Rather than to have a hit and miss program this time, a symposium on the glycols will be presented. In addition to the above numbers, by men distinguished in their lines, it is planned to have added to the program the names of two or three well informed pharmacists who will discuss the subject from the pharmaceutical point of view quite as efficiently and effectively as the three speakers already chosen will present their respective phases of the subject. It is the responsibility of the pharmacy group to make this symposium one of the outstanding features of the Richmond meeting.

Rufus A. Lyman.

Biological Abstracts Lays New Plans

Everything worth while is born at a terrible price. After it is born, it has to fight for a continued existence. There is no particular reason why scientific journals should be exempt from the laws of nature. Even in its twelfth annual volume, such a necessary tool to all biologists as Biological Abstracts is, it finds the continuance of its publication threatened unless more liberal financial support can be found. It would hardly seem necessary to defend before a pharmaceutical group, a group in whose endeavors the biological sciences play a major part, the necessity of maintaining an abstracting service, the purpose of which is the integration of the findings of science in an age when the watchword is specialization. Yet among biologists themselves, there has been a strong undercurrent toward the return to abstracting journals in the various fields of specialization. To meet this tendency and at the same time to maintain the integrating value of the abstracting science, the Board of Trustees of Biological Abstracts are proposing the following plan:

Biological Abstracts, while continuing to appear as a single complete entity, might, without repaging or other change except in the cover, be also broken up into several subject groups which would be made available to individuals not desiring the complete service. The idea seems practicable and the following subject grouping into five "reprint" parts is adopted for 1939.

I. Abstracts of General Biology, to include General Biology, Biography-History, Bibliography, Evolution, Cytology, Genetics, Biometry, and Ecology; price \$4.

II. Abstracts of Experimental Animal Biology, to include Animal Physiology, Nutrition, Pharmacology, Pathology, Anatomy, Embryology, and Animal Production; \$9.

III. Abstracts of Microbiology and Parasitology, to include Immunology, Bacteriology, Viruses, Parasitology, Protozoology, and Helminthology; \$5.

IV. Abstracts of Plant Sciences, to include Phytopathology, Plant Physiology, Plant Anatomy, Paleobotany, Systematic Botany, Agronomy, Horticulture, Forestry, Pharmacognosy, and Pharmaceutical Botany; \$6.

V. Abstracts of Animal Sciences, to include Paleozoology, Parasitology, Protozoology, and Helminthology, Systematic Zoology, and Economic Entomology; \$6.

The subscription price for the complete volume 13 for 1939 will be \$25 to individual subscribers and institutions alike.

A plan of this nature would involve merely the lifting out (without resetting of type or renumbering of the abstracts) of the sections appertaining to the subject group concerned and binding them in a separate cover which would bear the appropriate subtitle. This procedure would undoubtedly be facilitated by rearrangement of some of the sections. The complete index, going to all subscribers, would still preserve most of the desirable long-range features of the full service, and especially so since all subscribing libraries and institutions will, of course, want Biological Abstracts in its entirety. This would meet the requirements alike of specialization and general survey at prices that will be found feasible by both biologists and libraries. It is most emphatically not proposed to destroy Biological Abstracts by breaking it up into its components, but rather to maintain it as an integral unit while offering the membership of the separate societies many of the advantages which they would have if each society had its own individual abstracting journal.

Prompt coverage and issuing of indexes is promised. Such a plan should receive the hearty support of every college of pharmacy library as well as of teachers and investigators on our faculties working in specialized fields.

Rufus A. Lyman.

An Open Letter to Recent Pharmacy Graduates

Especially Those From the School of Pharmacy of the Medical College of Virginia

Now that four years of hard work in a pharmacy school, and the throes of State Board examinations are over for you, and you are out on the world as a graduate, full-registered pharmacist, we have it on our heart to write you very frankly about some matters that are a major concern to us and we trust will be considered very seriously and acted

upon promptly as you attempt to build yourself up in your chosen profession.

It has taken several generations for pharmaceutical education to be placed upon the plane that you found it upon your entrance into a pharmacy college. Your bachelor of science degree gives you an academic standing along with that of the engineer, architect, lawyer, and other professions, with the added advantage in Virginia of having had little trouble in obtaining a satisfactory position on a reasonable salary scale.

Have you accepted your new status with the proper proportion of humility and pride? Humility, because you know so little about how to meet many business and professional problems that you will face daily; so little about some of the diseases of body and mind of the patients for whom you will dispense; so little about the action of some of the drugs that must pass through your hands constantly; so little about the history of the age-old and honorable profession which you have chosen, and of the men who have made it what it is today; so little about how to deal with the great variety of personalities that you will find among those who come to you in all sorts of moods, running as they do the whole gamut of human emotions—from joy to utter despair; so little about the public health problems that you must, as an educated citizen, become actively interested in; so little about taking proper care of your body as you work long, long hours trying to get a few more nickels in the till before closing time. So little about the organizations in pharmacy that have brought it where you enter it today; so little about what to read in the spare time you may have in order not to become narrow, partisan, and actually small-minded; so little about your fellow druggists that you will frequently backbite them in sheer ignorance; so little about the finer things of life that make it really worth-while.

And pride, because you must realize the privilege you now have in sharing with other workers in the health service fields in the great problems of prevention, relief, and in instances even, cure of some of the vast number of diseases to which mankind is heir. Pride, because of the contributions that pharmacy has made for thousands of years toward making the world a better and safer place in which to live. Pride, because you must feel that the four years of sound training you have had in college place you on an intellectual and cultural level that increases your responsibility to your day and generation a thousandfold greater than if this privilege not come your way. Pride, that so long as you keep your body and mind clean and your character unsullied, your chances for being able to earn a respectable living are unusually good in Virginia. Pride, too, because in our state when men and women by the hundred, or even thousand, from other professions and white collar classes were forced on relief, perhaps not as many Virginia pharmacists as you have fingers on your two hands have had to ask for public assistance since the depression started in 1929.

That pharmacy in Virginia, and therefore you as a member of this profession, may continually improve in both economic and ethical values, there are certain obligations that you should assume early in your professional life. You must join and be active in the right type of pharmaceutical organizations. Even today you should join your state, and then, as soon as possible, your national pharmaceutical organizations.

Show me the most influential and successful and useful pharmacists and I will show you their names on the rolls of their state association, and many of the members of the National Association of Retail Druggists, or the American Pharmaceutical Association, or both. That it should work out this way is almost inevitable.

Again, if for the next five years you fail to read regularly and thoughtfully the best journals in pharmacy and closely related fields, your growth as a pharmacist—the kind that the times call for—will be irretrievably stunted. If you have not already done so, begin the reading habit today—tomorrow will be too late.

A third obligation you are already beginning to accept in fine spirit is the selection of the right sort of young men and women to take up the study of pharmacy. This is so important, that unless you exercise fine judgment in the selection of future students, you will have sidestepped a major obligation and opportunity. More and more each year we are going to be dependent upon you for this work. You must not, you will not fail us.

As we read this over, however, it sounds very much like a sermon, and maybe you are justified in so naming it. However, if you knew how deeply we feel what we have tried to say, and how profoundly interested we are in each of the twenty-one that we proudly handed their diplomas in June, you would understand.

A good group this was, and we shall miss you around college. May each of you feel that wherever you go, and whatever you do, those of us who worked with you will be profoundly interested in your welfare. Visit us when you can; write to us when you feel inclined to do so, remembering always that you have become a part of pharmacy in Virginia. You must work with all that is best, and against what is harmful in our profession.

Wortley F. Rudd,
School of Pharmacy, Medical College of Virginia.
—From the Virginia Pharmacist.

Report of Meetings of the American Council On Pharmaceutical Education

Meetings of the American Council on Pharmaceutical Education were held at the Hotel Nicollet, in Minneapolis, Minnesota, on August 19 and 20, 1938. The following members were in attendance: Messrs. E. F. Kelly, D. F. Jones, H. C. Christensen, R. L. Swain, A. C. Taylor, C. B. Jordan, A. G. DuMez, and Ernest Little, substituting for Townes R. Leigh.

These meetings were devoted to receiving the reports of the officers (the Secretary-Treasurer's report is published in full in this issue), to a discussion of the procedures to be followed in reporting to the colleges the decisions reached by the Council on the reports submitted by the committees of inspection; to the method of listing the colleges which are found to merit accreditation; to the drafting of letters to be sent to the colleges which have not yet made application for accreditation

and to those which have not completed and returned the questionnaire forms; to the incorporation of the Council; and to a consideration of the reports submitted by the inspection committees.

Officers for the ensuing year were elected as follows: E. F. Kelly, chairman, A. G. DuMez, secretary-treasurer.

Special Meeting of the Council

A special meeting of the Council was held on August 25, 1938, at the request of the Syllabus Committee. Those in attendance were Messrs. E. F. Kelly, D. F. Jones, H. C. Christensen, R. L. Swain, A. C. Taylor, A. G. DuMez, Ernest Little (substitute for Townes R. Leigh), representing the Council and H. M. Burlage, E. Fullerton Cook, E. V. Lynn, representing the Syllabus Committee.

At this meeting, the following proposals were submitted by the representatives:

1. That the Council appoint a committee to cooperate with the Syllabus Committee in the preparation of the Syllabus.

2. That the Council set a date on which the Syllabus will become an obligatory part of its standards for accreditation of colleges.

After a thorough and extended discussion on these proposals, in which all of those present participated, the representatives of the Syllabus Committee withdrew and the Council went into executive session, at which the following decision was reached:

The Council will cooperate with the Syllabus Committee in the revision of the Syllabus with the view to making the New Edition an obligatory part of its standards for accreditation in the future.

A. G. DuMez, Secretary-Treasurer.

The Pharmaceutical Syllabus and Its Revision--IV

The Syllabus Committee held two meetings, as well as a specially called joint meeting with the American Council on Pharmaceutical Education, at Minneapolis on August 21 and 25. Elsewhere in this issue is an announcement by the Council which has an important bearing on the status of the Syllabus. By the Council's action the new revision should represent not only the work of the Syllabus Committee and its subcommittees but also that of every person concerned with pharmaceutical education. Comments and suggestions on the work should come, therefore, unsolicited from persons so interested.

At the Minneapolis meeting the Committee voted to change the minimum of 3,000 clock hours for the four-year curriculum to 3,200 clock hours, to conform to the present standard established by the American Council on Pharmaceutical Education. Plans are being developed to redistribute these hours to the various branches of the curriculum, as modern trends in education seem to necessitate.

Committees are being appointed to present recommendations for standardized nomenclature of all subjects in the various branches. Outlines are gradually being completed for consideration. An executive committee has been instructed to formulate plans and policies to be followed in the future stages of the revision work.

Newly elected or reelected members of the Committee are: Representing the American Association of Colleges of Pharmacy—H. C. Newton (1942), completing the term of H. A. Langenhans, resigned, H. M. Burlage (1945), reelected. Representing the National Association of Boards of Pharmacy—A. L. I. Winne (1945), H. A. K. Whitney (1940), completing the term of S. A. Williams, resigned.

Henry M. Burlage, Chairman.

New Books

CHEMISTRY OF THE PROTEINS by Dorothy Jordan Lloyd, M.A. (Cantab.), D.Sc. (Lond.), F.I.C. Director of the British Leather Manufacturers' Research Association: formerly 'N' Fellow of Newnham College, Cambridge, and Agnes Shore, B.Sc., A.I.C. Demonstrator, Physiology Dept. London (Royal Free Hospital) School of Medicine for Women. Second edition. 1938. 532 pages. 101 illustrations. P. Blakiston's Son & Co. Price, \$5.50.

The book contains discussions of the nature and constitution of the proteins, the methods of analysis of proteins, their individuality and biochemistry, linkages in the protein molecule, architecture, proteolytic enzymes, acid and alkali combinations with proteins, properties of and theories of protein solutions, etc. Sir Frederick Gowland Hopkins, Professor of Biochemistry, University of Cambridge, says of the book, "The subject falls naturally into two main divisions: the constitutional chemistry of proteins and their physical chemistry. Few, I think, could have dealt with both aspects with the grasp and mastery of the essentials which the author displays. It is written from a standpoint which is partly critical, though it does not exclude reference to views which, while not yet proven, are suggestive and stimulating."

A MANUAL ON PHARMACEUTICAL LAW by C. Leonard O'Connell, Dean of the College of Pharmacy, University of Pittsburgh, and William Pettit, member of the Pittsburgh Bar. 1938. 196 pages. Lea and Febiger. Price, \$2.50.

No line of professional activity is more hedged about with legal requirements, federal, state and municipal, than is pharmacy. The pharmacist must be constantly on the lookout to be sure he is not only not breaking, but is fulfilling the law. The book deals with the federal and state regulatory laws—liability for negligent acts, pharmacists' liability for negligence of employee, responsibility in connection with sale of drugs for criminal purposes, distribution of contraceptives, etc., contracts relating to sale of drugs, bankruptcy insurance and sale restraints. An appendix gives the federal antinarcotic acts, the food and drug act, laws relating to non-mailable matter, uniform narcotic drug act, the pharmacy laws of Pennsylvania. A well organized and well written book of service to both the pharmacy student and the practitioner.

HANDBOOK OF PRACTICAL BACTERIOLOGY by T. J. Mackie, M.D., D.P.H., Professor of Bacteriology, University of Edinburgh, and J. E.

McCartney, M. D., D. Sc., Director of Research and Pathological Services, London County Council. Fifth edition, 1938. 586 pages. Illustrations of apparatus only. William Wood and Co. Price, \$4.00.

The book is a guide to bacteriological laboratory work. It follows the plan of previous editions in that the subject is divided into three parts. The first division deals with the general biology of organisms and immunity in its relation to practical bacteriology. The second part deals with bacteriological technique and the third, with pathogenic forms and bacteriological diagnosis. Those parts of the book which required modification because of new knowledge and because of modifications of laboratory practices, have been thoroughly revised. As a practical guide in bacteriological technique, it is an excellent work.

PHARMACOGNOSY by Edmund N. Gathercoal, Ph.G., Ph.M., and Elmer H. Wirth, Ph. C., Ph. D., Professor and Assistant Professor respectively in the University of Illinois, College of Pharmacy. 1936. 852 pages. 372 engravings and a colored plate. Lea and Febiger. Price, \$7.50.

Dr. Henry Kraemer was an American pioneer in this field of pharmaceutical science and this book is built upon the third edition of his classical work. The text conforms to the standards of the last revision of the United States Pharmacopoeia and National Formulary. Following the modern trend, the authors have stressed the chemistry of drug plants and their identification by microchemical methods. Several monographs of drugs recently introduced into medicine have been included and the chapter on animal drugs has been rewritten. The illustrations and mechanics of the text are in keeping with the contents.

TEXTBOOK OF PHARMACEUTICAL BOTANY by Heber W. Younghen, Ph. M., Ph. D., Sc. D. Professor of Botany and Pharmacognosy in the Massachusetts College of Pharmacy. Sixth edition, 1938. 793 pages. 507 illustrations. P. Blakiston's Son & Co., Inc. Price, \$7.00.

The sixth edition of this book sustains both the reputation of the author and the publishers. A revision was called for, not only because of a new revision of the United States Pharmacopoeia and the National Formulary, but because of the rapid development of knowledge in plant science. Many new illustrations have been added. The chapter on cytology has been replaced by one on "The Living Cell" and "Non-protoplasmic Cell Contents". A chapter on genetics has been added and the one on plant tissues has been augmented. The chapter on the microscope and histological technique has been placed at the back of the book as an appendix. The glossary and the bibliography have been retained and enlarged.

TEXTBOOK OF PHARMACEUTICAL ARITHMETIC by Theodore J. Bradley, Phm. D., A. M., B. S., late Dean of the Faculty and Professor of Chemistry in the Massachusetts College of Pharmacy. Second edition, 1937. Edited and revised by Will T. Bradley, A. M., A. B., and Carroll B. Gustafson, Ph. C., B. S., Instructor in the same institution. 199 pages. Lea and Febiger. Price, \$2.25.

Dean Bradley's text is well known to the teachers of pharmacy. It consists largely of a collection of problems which, in thirty-four years of experience, the author found were admirably adapted for teaching. They give the student an understanding of the applications of arithmetic to pharmacy. The scope of the first edition was determined by the Pharmaceutical Syllabus and Charter's Basic Material for a Pharmaceutical Curriculum. The new revision brings the text into conformity with the last revision of the United States Pharmacopoeia and clarifies certain portions of the exposition.

HEART FAILURE by Arthur M. Fishberg, M.D. Associate in Medicine, Mount Sinai Hospital, New York City. 1937. 788 pages. 25 engravings. Lea & Febiger. Price, \$6.50.

This book is a comprehensive study of the physiology of the heart and the phenomena of the whole mechanism of circulation by a study of the pathological physiology of the failing heart. The author states it was written primarily for the general practitioner of medicine but it is quite as valuable for the student and research worker in the fields of physiology, pharmacology and pathology, and to the specialist it is invaluable. It is impossible in a brief review to touch upon even the comprehensiveness of the work, but it is given a place here because of its contribution to the physiology and pharmacology of the circulation. It should be in every pharmacy library.

THE SCIENCE OF HEALTH AND DISEASE by Howard W. Haggard, Director of the Laboratory of Applied Physiology of Yale University, with an introduction by Yandell Henderson. Revised edition, 1933. 594 pages. 88 illustrations. 10 plates. Harper and Brothers. Price, \$3.00.

The book is intended for students on the college level and it covers the subject of physiology, personal and public health, and the problems of disease. It is written in the usual easy and fascinating style of the author. While students of pharmacy need a more comprehensive text book, certain books of this kind should be made accessible to them. It brings out the relation of physiology to the practical problems of medicine and tends to more efficient living.

HANDBOOK OF PHYSIOLOGY AND BIOCHEMISTRY by the late W. D. Halliburton, M.D., LL.D., F.R.C.P., F.R.S., formerly Professor of Physiology, University of London, King's College, and R. J. S. McDowall, M.D., D.Sc., F.R.C.P. (Edin.), Professor of Physiology, University of London, King's College. Thirty-fifth edition, 1937. 973 pages. 373 illustrations, many of which are colored. 4 colored plates. P. Blakiston's Sons and Co., Inc. Price, \$5.50.

When a textbook, irrespective of its precursors, reaches its thirty-fifth edition, it must have fulfilled a real need. This is especially true in the field of physiology where there has been keen competition between many excellent texts. The new edition of Halliburton is not only excellent in material but superior in mechanical construction. The illustrations are especially fine and the book is printed on washable paper.

The book deserves to have its past support continued. With the inclusion of physiology as a basic science in the pharmaceutical curriculum, this text should be considered for the class room and should be found in every pharmaceutical library.

How To LIVE by Irving Fisher, LL.D., Emeritus Professor of Economics, Yale University, and Haven Emerson, M.D., Professor of Public Health Practice, Columbia University. Twentieth edition. Completely revised and rewritten. 1938. 422 pages. Illustrated. Funk and Wagnalls Co. Price, \$2.50.

This is a practical handbook written in a non-technical style on how to live. It is based on modern science. It deals with clothing, housing, outdoor living, bathing, eating, drinking, fasting, poisonous infections of mouth and colon, work hygiene, exercise, relaxation, sleep, mental attitudes, and various fields of and possibilities of hygiene. Two-thirds of the book consists of a series of thirty-two articles, each written by a recognized authority, which adds greatly to the value of the book. Some of the subjects discussed are, "Low Protein Diet", "Flesh Eating and Endurance", "Vitamins", "Alcohol", "Cardinal Principles in Weight Regulation", "Tuberculosis", "Syphilis and Gonorrhea", "The Cancer Problem," etc. These articles give the present status of each subject discussed. It is another one of those books which should be read by students of pharmacy.

AIDS TO BIOCHEMISTRY by E. A. Cooper, D.Sc. (Lond.), F.I.C., A. R. C. S. (Lond.), and S. D. Nicholas, B. A. (Oxon.), A. I. C. Lecturer in Chemistry, University of Birmingham. Second edition, 1938. 213 pages. Illustrated. William Wood and Company. Price, \$1.50.

AIDS TO BACTERIOLOGY by William Partridge, F.I.C. Late Public Analyst for the County of Dorset and the Boroughs of Poole and Penzance. Sixth edition, 1938. Revised by H. W. Scoot-Wilson, B.Sc., B.M., B.Ch. (Oxon.), Director of the Laboratories of Pathology and Public Health, London. 300 pages. William Wood and Company. Price, \$1.50.

AIDS TO EMBRYOLOGY by Richard H. Hunter, M.D., M.Ch., Ph.D., M. R. I. A. Lecturer in Anatomy, Queens University, Belfast. Third edition, 1938. 178 pages. Illustrated. William Wood and Company. Price, \$1.25.

AIDS TO HISTOLOGY by Alexander Goodall, M.D., F.R.C.P. Edin. Lecturer on Physiology, School of Medicine of the Royal Colleges, Edinburgh. Fourth edition, 1938. 151 pages. Illustrated. William Wood and Company. Price, \$1.25.

These little books belong to the Students' Aids Series, published by William Wood and Company. They are just what the publisher claims for them, "especially designed to assist students in grouping and remembering the subjects upon which they are to be examined and offering the general practitioner a means of brushing up". The subject matter in these volumes has been brought up to date and will be of help to those hurriedly seeking the latest viewpoints in the various fields.

SPRINKLER CONVERSION FORMULAS. By Leland W. Sprinkler. 1938. 122 pages. P. Blakiston's Sons & Co., Inc.

The book attempts to simplify the conversion of formulas in the various scientific fields. It has put in concise form a lot of tables that workers cannot carry in their heads. It would hardly be possible for a single human being to accomplish such a task and satisfy workers in every field. It covers the pharmaceutical field very briefly.

INORGANIC PHARMACEUTICAL CHEMISTRY by Charles H. Rogers, D. Sc. (in Pharm.), Dean College of Pharmacy and Professor of Pharmaceutical Chemistry at University of Minnesota. Second edition, revised, 1936. 724 pages. 55 engravings. Lea and Febiger. Price, \$7.00.

The author must be complimented on the manner in which he has been able to answer some of the *whys* and *wherefores* of the Pharmacopoeia and National Formulary, which have so often worried the student of pharmacy. He not only discusses the official elements, compounds and preparations but many others which are of more or less interest to the pharmacist. The general procedure followed in the discussions is, properties, tests for identity, commercial methods of manufacture, assay, pharmaceutical preparations and physiological action. The commercial methods of manufacture are the ones used today and not the usual out of date methods so commonly found in textbooks of pharmacy and chemistry. Adequate explanation is offered for the official assays and the tests for identity. The reviewer believes that this book is worthy of adoption in colleges of pharmacy.

PHYSIOLOGICAL AND CLINICAL CHEMISTRY by William A. Pearson, Ph. C., M. D., Ph. D., Phar. D., Sc. D., LL. D., Professor of Chemistry and Physiological Chemistry, Hahnemann Medical College, Philadelphia, and Joseph S. Hepburn, A. M., B. S. in Chemistry, M. S., M. D., Ph. D., Associate Professor of Chemistry and Research Associate in Gastroenterology, Hahnemann Medical College. Second edition, revised, 1938. 467 pages. 46 engravings. Lea and Febiger. Price, \$5.50.

It is the opinion of the reviewer that the authors of this 447 page textbook have attempted to cover entirely too much ground. The result is that the book is very sketchy in some parts and, therefore, limited to students with a rather thorough knowledge of the subject. The authors in their preface state that the student upon entering medical school usually has only a superficial knowledge of organic chemistry, and frequently has not pursued courses in physical and analytical chemistry. These last two subjects are covered in seventeen pages. An exception is taken to the volume per cent example given on page 28, as the authors have not taken into consideration the shrinkage of alcohol-water mixtures. The subject of organic chemistry is briefly reviewed in 55 pages. Some of this material needs to be brought up to date; for example, the statement regarding the mechanism of ester formation. Other chapters are devoted to such topics as lipins, carbohydrates, proteins, enzymes, foods and metabolism, digestion, feces, blood, urine, milk and water analysis. At the end of each chapter are found laboratory experiments covering the work of that particular subject.

PHARMACEUTICAL LATIN by Jacob S. Dorfman, Assistant Professor of Pharmacy, Columbia University, College of Pharmacy. Second edition, 1938. 146 pages. Lea and Febiger. Price, \$2.00.

The second edition of this work intended for pharmaceutical, medical, dental and veterinary students and practitioners shows evidence of a thorough revision. In general arrangement it is similar to other texts in pharmaceutical Latin. The chief points of difference exist of a more detailed discussion of the nouns of the third declension, and a more thorough discussion of the conjugation of Latin verbs. Another feature which is not found in similar texts is the chapter on pronouns.

The written exercises, 54 in number, appear to be more than would normally be used in the course, thus permitting some choice of material on the part of the instructor. Fairly complete Latin-English and English-Latin vocabularies are provided together with a rather extensive list of general terms used in prescription writing. This should be a useful text in courses in Pharmaceutical Latin.

A HISTORY OF PHARMACY by James Grier, M. Sc., Ph. C. Formerly, Senior Lecturer in Pharmacy, Victoria University of Manchester, 1937. 247 pages. Illustrated. The Pharmaceutical Press, Bloomington Square, London. Price, six shillings.

This little book is the result of the decision of the Council of the Pharmaceutical Society to introduce into the examination syllabus the origin and development of pharmacy. The applicants for examination are expected to have a knowledge of the history of pharmacy beginning with 1600 because it was the seventeenth century that saw the emergence of modern pharmacy and medicine in England. The story in the book, however, begins with the Egyptian period and the author has attempted to ascertain the reasons underlying the pharmaceutical practice of the succeeding periods. The story is fascinatingly told and the book will fill a need in the life of the pharmacy student. The most important factor in the development of a professional morale is the study of the history and the accomplishment of a profession.

PHYSIOLOGY AND ANATOMY by Esther M. Greisheimer, Ph. D., M. D., Professor of Physiology Women's Medical College of Pennsylvania, formerly Associate Professor of Physiology, University of Minnesota. Third edition, revised. 1937. 706 pages, 424 illustrations of which 48 are in color. J. B. Lippincott Company. Price \$3.00.

The book presents the anatomy of each system in one chapter and follows with a chapter on physiology of that system. The information is given in compact form; few books contain so much information between their covers. The mechanics of the book are excellent and the illustrations are clear and well chosen.

Have you renewed your subscription for Volume III?

CONSTITUTION AND BY-LAWS of the AMERICAN ASSOCIATION of COLLEGES OF PHARMACY

As Amended at the 1938 Meeting

CONSTITUTION

Article 1. *Name.* This organization shall be known as the American Association of Colleges of Pharmacy (formerly the American Conference of Pharmaceutical Faculties).

Article 2. *Object.* The object of the Association shall be to promote pharmaceutical education and research.

Article 3. *Membership.* The Association shall consist of the colleges of pharmacy represented by delegates at the organization meeting of the American Conference of Pharmaceutical Faculties held at Richmond, Virginia, 1900, and of colleges of pharmacy which may at any time be admitted to membership.

The title, college of pharmacy, shall be interpreted as designating an incorporated college of pharmacy; or a school, college or department of pharmacy in a state university, or in a regularly incorporated or legally empowered educational institution.

Article 4. *Election of Members.* Colleges of pharmacy may, upon the recommendation of the Executive Committee, be elected to membership at the annual meeting by a vote of two-thirds of the members of the Association.

If a majority of the members represented at any meeting of the Association shall vote in favor of a candidate's admission, but if the affirmative vote shall number less than two-thirds of the total membership, the votes of members not represented at said meeting shall be taken by mail.

Article 5. *Voting Body.* Each member-college shall be entitled to only one vote in the transaction of the Association, but all the properly accredited delegates of any member-college shall have the right to engage in debate upon any question.

Article 6. *Quorum.* Delegates from twenty-five of the colleges that are members of the Association shall be necessary to constitute a quorum.

Article 7. *Officers.* The officers of the Association shall be a

President, a Vice-President, a Secretary-Treasurer, and the Chairman of an Executive Committee, all of whom shall be elected by ballot, and shall hold their respective offices for one year or until their successors are elected and installed.

The President, or in his absence the Vice-President, shall preside at all meetings of the Association, shall present an annual address, shall appoint committees, and shall perform such other duties as pertain to the office of President.

Article 8. *Executive Committee* The Executive Committee shall consist of the Chairman, the President and the Secretary-Treasurer of the Association, and four accredited delegates, two of whom shall be elected by ballot each year and who shall hold office for two years.

Article 9. *Meetings*. The Association shall hold one meeting annually at the same place and coincident with the annual meeting of the American Pharmaceutical Association, the time to be arranged by the Executive Committee of the Association, after consultation with the Council of the American Pharmaceutical Association.

Article 10. *Mail Voting*. Any question or business except the election of members, may be submitted through the Executive Committee to a vote of the Association by mail during the interim between meetings.

Article 11. *Amendments*. Any proposal to alter or amend this Constitution shall be submitted in writing to the Chairman of the Executive Committee not later than forty days prior to the annual meeting of the Association, and a copy of such proposed alteration or amendment shall be mailed by the Chairman to each member-college not later than thirty days prior to the said annual meeting. Such alteration or amendment shall, upon receiving a two-thirds vote of the membership, become a part of the Constitution.

Should such alteration or amendment receive an affirmative vote of a majority of the members represented at any meeting, but less than two-thirds of the total membership, the votes of the members not represented at said meeting shall be taken by mail.

BY-LAWS

Article I. *Duties of the Executive Committee*. The Executive Committee shall make all necessary arrangements for the annual meeting of the Association, shall have power to transact all necessary business of the Association, in accordance with the Constitution and By-Laws, during the interim between meetings, and shall examine the credentials of delegates prior to the annual meeting of the Association.

If, from investigation by the Executive Committee, it appears that any member-college is not complying with the requirements for membership in the Association, it shall be the duty of the Executive Committee to submit to such college its findings, at least thirty days prior to the annual meeting, and to report the same to the Association at the annual meeting.

Upon receipt of an application for membership in the Association, the Executive Committee shall thoroughly examine the college making such application, to determine whether it is meeting all the requirements for membership in the Association and shall report the result

to the member-colleges by mail or at an annual meeting of the Association.

All member-colleges shall be visited at least once in three years by representatives appointed by the Executive Committee.

It shall be the duty of the Executive Committee (or a subcommittee working under it) to check the current catalogues or bulletins of each member-colleges that fail to omeet the requirements of Article VII, Section 7, Paragraph 4.

Article II. *The Committee on Pharmaceutical Syllabus.* The Committee on Pharmaceutical Syllabus shall consist of seven members elected by ballot, each for a term of seven years; vacancies, occurring in the interval between annual meetings, shall be filled by appointment by the President, such appointee holding office until the next annual meeting, when the vacancy shall be filled by election for the remainder of the term. The members of this Committee shall be members of the Pharmaceutical Syllabus Committee and shall report to the Association annually, or as occasion demands.

A proportionate share, but not to exceed fifty dollars a year, of the current expenses of the Pharmaceutical Syllabus Committee shall be contributed by the Association.

Article III. *Committee on Resolutions.* The Committee on Resolutions shall consist of five members to be appointed by the President at the first general session of the Association. All resolutions presented to the Association, except those presented by the Executive Committee, shall be referred to this Committee for study and report, unless the Association specifically directs otherwise.

Article IV. *Fees and Dues.* Colleges holding membership in the Association shall pay an initiation fee of \$25.00 and annual dues of \$50.00. No college shall be considered in good standing or entitled to vote unless all dues are paid; and a college which is in arrears for three years shall be dropped from membership.

Article V. *Disbursements of Funds.* All disbursements of moneys for other than routine expenses shall be upon the written order of the Chairman of the Executive Committee, and an itemized account of all receipts and disbursements shall be presented at each annual meeting of the Association by the Secretary-Treasurer.

Article VI. *Executive Sessions.* All proceedings and discussions as to the standing and qualifications of member-colleges or of the eligibility of colleges to membership in the Association shall be conducted in executive session.

Article VII. *Qualifications for Admission to and Membership in the American Association of Colleges of Pharmacy.*

1. An applicant for membership in this Association must be incorporated as a college of pharmacy, or be a school or college of pharmacy in a state university or other regularly incorporated, or legally empowered educational institution.

2. No college of pharmacy conducted for financial gain shall be eligible for membership in this Association.

3. In order to qualify for membership, a college must have been in continuous operation for at least three years prior to the date of application. All curricula of undergraduate work must be in operation at the time of visitation by the examining committee.

4. An application for membership must be accompanied by the approval of the state university, the state department of education or the state pharmaceutical association of the state in which the college is located. Application forms indicating information required by the Association will be furnished by the Chairman of the Executive Committee. A copy of the latest college catalogue should also accompany the application for membership.

5. In order to qualify for membership in the Association, the applicant college must possess a faculty which, in the judgment of the inspection committee, is sufficient in number and in every way qualified to properly carry on the work being undertaken by the college under consideration. The applicant college must number among its staff-members at least three full time professors in pharmaceutical subjects in the College of Pharmacy, this requirement to become effective September, 1937. A full time professor in a college of pharmacy shall be interpreted as meaning a person of professional rank whose chief interest and activity is that of teaching or research in the college of pharmacy and who is readily available for consultation with students.

The training of the members of the teaching staff of full professorial rank shall be that represented by the Doctor of Philosophy (Ph.D.) degree, or its equivalent, from a standard graduate school, or a corresponding amount of technical or professional preparation, together with successful teaching experience. Adequate administrative experience, in addition to the above qualifications, shall be required of a professor chosen to act as a department head or dean or director.

Associate and assistant professors shall have had at least two (preferably three) years of study in a standard graduate school, or an equivalent amount of technical or professional preparation.

Instructors shall possess as a minimum the training represented by the master's degree in their respective fields, or an equivalent amount of technical or professional preparation.

In general, publications of meritorious original work, participation in professional meetings and sound teaching, indicate a superior faculty such as will meet the requirements of the Association.

6. The minimum requirements of member-colleges for admission of students as candidates for a degree shall be:

September 1, 1936, shall be the latest date on which any member-college may confer a degree for any course of less than four years duration.

Good moral character.

Evidence of satisfactory completion of four years of high school work or its equivalent, which is of such a nature as to adequately prepare him for the work which he is undertaking.

Students who are candidates for a degree shall be admitted to courses leading to such degrees only during the first thirty days of each session and all necessary certification of entrance requirements must be completed within thirty days of the opening of the college term.

A student desiring to transfer from one college to another shall be required to present a transcript of his record and a certificate of honorable dismissal from the college he is leaving. If the above conditions are complied with, the admittance of the student is optional on the

part of the second college, provided all entrance requirements can be met.

Credits earned in a standard college, one recognized by the state educational department or by the state university in the state in which it is located, may be accepted for face value in a college of pharmacy insofar as such work applies on the course in pharmacy, but regardless of amount of credit offered no student shall be permitted to complete the course in pharmacy in less than three collegiate years in a college of pharmacy, this to become effective for students entering member-colleges on and after January 1, 1938.

Member-colleges shall prepare each year, before April 1, a statement of the students enrolled who have not been previously reported upon. There shall be included in this report a brief statement of the entrance credentials of each student reported. Such reports shall be certified to by the proper officers of the college, seal attached, and shall be forwarded to the Chairman of the Executive Committee, who shall carefully examine these lists and report to the Association at the next annual meeting any irregularity or evidence that the spirit or letter of the Association standards has been violated. The failure of any member-college to comply with the requirement shall be published in the Proceedings, and if the offending member, after due notification, fails to meet this requirement for two consecutive years, it shall be subject to expulsion from the Association. Said member-college may, upon the recommendation of the Executive Committee, be reinstated by a two-thirds vote of the entire Association.

7. The institution shall include in its course of instruction oral lectures, recitations and personal laboratory work.

Approximately 50 per cent of the total number of hours in the curriculum shall be professional and applied subjects and the remainder of a foundational or cultural nature. The professional and applied subjects shall include the pharmaceutical chemistries, the strictly pharmacy and business subjects, and the closely allied scientific subjects such as pharmacognosy, pharmacology, drug analysis and biological assay. The natural and biological sciences, English, economics, foreign languages, mathematics, psychology, etc., are classified as general, foundational or cultural subjects. In general, the curriculum should conform to that recommended in the latest published edition of the National Pharmaceutical Syllabus.

All subjects offered for the baccalaureate degree must be of collegiate grade. The general collegiate subjects must be taught in such a manner and under such conditions as to warrant credit in a non-pharmacy educational institution and to merit the admission of its graduates to standard graduate schools as candidates for advanced degrees in pharmacy or closely allied fields of science.

Member-colleges must publish an annual catalogue in which the college calendar, members of the teaching staff, requirements for the various degrees offered, names and descriptions of courses, together with the names of the members of the teaching staff responsible for such courses, are clearly stated. The number of clock hours of class and laboratory work devoted to each course shall be clearly set forth, together with the credit afforded each. The semester hour shall be interpreted as representing one period of not less than fifty minutes of class room work (lecture or recitation) per week for one semester.

Three hours of strictly laboratory work or two of laboratory work with one hour of correlated references or written work, shall be considered the minimum equivalent of one hour of class room work.

Member-colleges may give credit for work done in absentia or in night school courses for academic, non-technical subjects only, provided such work has been taken in a recognized college or university which is a member of the Association of American Universities and whose credits are accepted by the state department of education or by institutions holding membership in the Association of American Universities.

Member-colleges may accept transfer students without examination from such non-member colleges as have been approved by the American Council on Pharmaceutical Education. Member-colleges may extend such credit to a transferring student as they deem wise and appropriate.

8. The laboratory equipment and apparatus shall be sufficient to properly carry on all experimental work of the scientific and professional courses announced in the annual catalogue. Such equipment must be replenished or increased by adequate annual appropriations. Ten thousand dollars' worth of laboratory apparatus and equipment may be considered the minimum amount necessary to carry on undergraduate laboratory work under the most restricted circumstances.

9. The library must contain such standard texts, reference books and scientific journals as, in the judgment of the committee of inspection may be essential for the type and scope of work being undertaken by the college under consideration. The library must also be supported by an annual appropriation which the committee deems adequate for upkeep and normal growth. The Association suggests as a guide to its inspection committees that, for a college carrying on only Bachelor of Science work, approximately 4,000 standard text and reference volumes would constitute the minimum requirements, provided they are supplemented by necessary scientific journals. The library should be properly catalogued, in charge of a trained librarian and open for student use not less than eight hours per day. Included among the library facilities should be an adequately lighted and ventilated reading room, large enough to accommodate at least 15 per cent of the student body.

10. Degrees to be awarded:

The degree of Bachelor of Science (B.S.) or Bachelor of Science in Pharmacy (B.S. in Phar.), and these degrees only, may be given for the completion of the four-year course of not less than 3200 hours. It is understood that these degrees are awarded for work of collegiate standard such as is done in our better arts and science colleges.

The degrees of Master of Science (M.S.), Master of Science in Pharmacy (M.S. in Phar.), Doctor of Philosophy (Ph.D.) or Doctor of Science (D.Sc.), may be given for work in course, providing the requirements of standard graduate schools are fully met. Graduate work shall be interpreted as meaning work done after the completion of the requirements for the baccalaureate degree in a college of pharmacy. Graduate credit may not be given for undergraduate courses in the subject in which the candidate for a higher degree is doing his major work.

After July 1, 1938, the degree of Doctor of Pharmacy shall not be given for work in course.

11. The graduation requirements of all member-colleges for entering students shall be the satisfactory completion of not less than 3200 clock hours of instruction, of which at least 1300 hours shall consist of lectures and recitations and at least 1300 hours shall consist of laboratory work. Such instruction shall be given within a period of not less than four full college years of at least thirty-two weeks each, and shall be scheduled over a minimum of five days per week in accordance with approved academic procedure. At least two months must elapse between the first and second years, the second and third years and the third and fourth years.

A college may, with the approval of the Executive Committee, be permitted to shorten this time provided additional work is done in a regularly organized summer session in an approved institution and provided further that all the required hours have been completed.

Before being awarded a degree, every candidate must be adjudged by the combined faculty as having made a satisfactory record in the courses offered for graduation and to be a person suitably equipped, morally and otherwise, for the profession he is about to enter.

Member-colleges shall send each year to the Chairman of the Executive Committee, within one month following their spring commencement, the names and addresses of all persons on whom degrees have been conferred during the past year, together with the degree awarded in each instance. All honorary degree awards shall be included in this report.

12. The educational policy of the administration, the thoroughness of scholarship, the presence of the scientific spirit, the soundness and inspiration of instruction, effective faculty supervision of all extra-curricular activities, the quality of publicity indulged in, conservatism in awarding honorary degrees—indeed, the general tone of the institution, including students, as well as faculty—are important items concerning which definite regulations can hardly be established, but which will furnish the investigating committee important data bearing upon the decision which they are to make.

13. Should any member of the Association be guilty of flagrant violation of the Association's regulations or requirements, the Executive Committee may, if deemed advisable, suspend such member-college until its case can be formally acted upon at the next annual meeting of the American Association of Colleges of Pharmacy.

14. No change in qualifications for admission to or membership in the Association shall be made unless the same has been presented in writing to the Association at a regular meeting, or to the members of the Association by mail at least four months prior to its adoption. In either case, a two-thirds majority of all member-colleges voting on the proposed change is necessary for its adoption.

Article VIII. *Discipline of Member-Colleges.* Any college belonging to the Association may have charges brought against it for failure to comply in a satisfactory manner with the qualifications as formulated in Article VII. Such charges must be made in writing and filed with the Chairman of the Executive Committee at least ninety days prior to an annual meeting of the Association. Immediately after the filing

of charges, the Chairman of the Executive Committee shall furnish the college against which the charges are made, and each member of the Executive Committee, with a copy of the charges. The college against which the charges have been preferred shall be given a hearing at the time of the annual meeting of the Association. The evidence presented to the Executive Committee and its conclusions upon the same shall be presented to the Association for final consideration. If the charges shall be sustained by a two-thirds vote of the members of the Association, said institution shall be reprimanded, suspended from the privileges of membership, or expelled from membership, as may be determined by a two-thirds vote of the Association.

Article IX. *Right of Withdrawal.* Any college holding membership in the Association shall have the right of withdrawal by giving written notification to the Secretary of the Association after paying all dues which such college may be owing the Association. The reasons for withdrawal shall be presented to the Executive Committee and at the next annual meeting consideration of the same and action thereon shall be taken in executive session.

Article X. *Representation at Annual Meetings.* Any member-college failing for three successive years to have one or more delegates at the annual meeting shall automatically lose its membership. These delegates must be directly connected with the institution as members of its teaching staff.

Article XI. *Committee Reports.* All committees shall present written reports. No verbal committee reports will be accepted by the Association.

Article XII. *Points of Order.* On all points of order not covered by these By-Laws, the Association shall be governed by Robert's Rules of Order or by the established usages in all assemblages governed by parliamentary rule.

Article XIII. *Amendments.* These By-Laws may be altered, added to, or suspended at any regular meeting by a two-thirds vote of the members represented at such meeting except as provided in Article VII, Section 14.

Article XIV. *Order of Business.*

1. Roll Call.
2. President's Address.
3. Report of Secretary-Treasurer.
4. Report of Executive Committee.
5. Appointment of Committees—Resolutions, Nominating and Auditing.
6. Reports of Standing Committees.
7. Reports of Special Committees.
8. Unfinished Business.
9. Miscellaneous.
10. Election of Officers.
11. New Business.
12. Executive Session and Election of New Members.
13. Adjournment.

APPLICATIONS FOR MEMBERSHIP

Applicants for membership in the Association shall furnish a statement of qualifications of the members of the faculty, and of the equipment of the college. The application for membership in the Association shall be signed by the dean of the faculty and the president of the college, both of whom shall make affidavit to the same, and it shall bear the seal of the college.

If the information furnished by the applicant shall be regarded as sufficient, the Chairman of the Executive Committee shall appoint a Committee on Visitation, consisting of three representatives of the Association, who shall visit the college during a regular session at the expense of such college and report their findings to the Chairman of the Executive Committee.

The statement required of any candidate for admission to the Association must be made in accordance with the following numbered heads. All answers should be direct and clear.

The Executive Committee is required to verify the statements made, if in its judgment this is necessary, or it may ask for further information.

1. Name of the college.
2. Location.
3. Date of organization.
4. Is the college named above, itself a degree-conferring institution? If not, what is the name of the institution conferring degrees and what relation does the college sustain to the degree-conferring body?
5. Is the college governed by a board of trustees or directors, or some other governing body? By whom and for what reason are the members of the governing body elected or appointed?
6. In what person or persons does the paramount executive authority of conducting the college rest?
7. Is the college as a whole or any material part of equipment the individual property of any person or persons exercising executive authority in its conduct? Is it owned by a firm, stock company, or partnership?
8. Is any pecuniary profit derived by the owner or owners or the managers from the operation of the college?
9. State as nearly as possible the total value of grounds, buildings and equipment exclusively devoted to instruction in pharmacy.
10. If the college does not own grounds or buildings, what is the actual value of furniture, fixtures, apparatus, materials, books and museum used for courses in pharmacy?
11. Enumerate the several different laboratories at the disposal of the college and state for what purpose each is used.
12. For how many hours each week, between 8 a. m. and 6 p. m. daily, is each of these laboratories at the disposal of the college for the use of its students?
13. How is the college supported? Are all the expenses of the college paid mainly or exclusively out of the actual income from the tuition and other fees or charges paid by the students, or is it supported to a material extent by endowment or appropriations?
14. State the number of professors giving instruction to students of pharmacy in the subjects belonging to the obligatory curriculum.

15. Give the number of assistants similarly employed.
16. By whom are the professors and other members of the teaching staff appointed or employed?
17. Give the name, age, academic history, college degrees, and also briefly, the professional career or service of each of the professors.
18. Are the teachers, or any one of them, individual owners, in whole or in part, of the stock or equipment of the college?
19. How many students were in actual attendance during the twelve months immediately preceding the date of this report, and what was the largest number in concurrent attendance during any part of that twelve months?
20. Give the regular date or dates upon which students may enter the course of study.
21. What are the entrance requirements prescribed and enforced?
22. State briefly what studies are embraced in the obligatory curriculum.
23. What is the length in weeks of each term or semester?
24. How many terms are given annually?
25. How many such terms are required for each degree given?
26. Give the complete curriculum for each degree granted, stating the number of lecture hours and the number of laboratory hours devoted to each subject.
27. State the total number of lecture hours, and the total number of laboratory hours each student is obliged to attend for each degree offered.
28. Can any portion of the obligatory course be taken without resident attendance, and if so, what portions, and in what manner?
29. Is any student exempt from any portion of the work embraced in any curriculum? If so, in what manner and on what conditions is such exemption granted?
30. Is any of the obligatory instruction given at night, and if so, how much of it?
31. What degrees in pharmacy are conferred and what are the specific requirements for each degree?
32. Is the vote of the majority of the faculty required in every instance before a degree is conferred by this institution?
33. What was the number of graduates included in the last graduating class?
34. Submit a current catalogue or bulletin which gives the annual calendar, course of study, hours devoted to each subject, and description of each subject.

Virginia Mott, a 1938 graduate of the College of Pharmacy of Wayne University and a daughter of Dr. Charles P. Mott of the faculty, is doing graduate work at Leland Stanford University.

Mr. H. F. Lefevre, 1938, University of Buffalo and Mr. H. E. Conrad, 1938, Ohio State University, are doing graduate work at Purdue; the former is making a study of the extraction of tannin bearing drugs and the latter is working on ephedrine and siler preparations.

INSTITUTIONS HOLDING MEMBERSHIP IN THE ASSOCIATION WITH NAMES OF DELEGATES IN ATTENDANCE AT THE 1938 MEETING

(Continued from Inside Front Cover)

MASSACHUSETTS

Massachusetts College of Pharmacy, Boston; Howard C. Newton, Dean (1900).
(Howard C. Newton, Heber W. Youngken, Eldin V. Lynn, Leslie M. Ohmart, Charles W. Bauer, Ray S. Kelley, Joseph G. Goodness, Carroll B. Gustafson, Will T. Bradley)

MICHIGAN

Detroit Institute of Technology, College of Pharmacy and Chemistry, Detroit; Esten P. Stout, Dean (1923).
(Esten P. Stout, Richard S. Warner)

Ferris Institute, College of Pharmacy, Big Rapids; Simon Benson, Dean (1938).
(Merle S. Ward, Simon Benson)

University of Michigan, College of Pharmacy, Ann Arbor; Howard B. Lewis, Director (1900).
(Charles H. Stocking, Clifford C. Glover, Justin L. Powers)

Wayne University, College of Pharmacy, Detroit; Roland T. Lakey, Dean (1925).
(Roland T. Lakey, Ralph J. Mill)

MINNESOTA

University of Minnesota, College of Pharmacy, Minneapolis; Charles H. Rogers, Dean (1901).

(Charles H. Rogers, Gustav Bachman, Earl B. Fischer, Glenn L. Jenkins, Ole Givold)

MISSISSIPPI

University of Mississippi, School of Pharmacy, Oxford; Elmer L. Hammond, Dean (1913).

(Elmer L. Hammond, William W. Johnson, Mrs. William W. Johnson)

MISSOURI

St. Louis College of Pharmacy, St. Louis; Charles E. Caspari, Dean (1900).
(Arthur F. Schlichting)

MONTANA

State University of Montana, School of Pharmacy, Missoula; Charles E. F. Mollett, Dean (1917).

NEBRASKA

Creighton University, College of Pharmacy, Omaha; William A. Jarrett, Dean (1916).

(William A. Jarrett)

University of Nebraska, College of Pharmacy, Lincoln; Rufus A. Lyman, Dean (1913).

(Rufus A. Lyman, Joseph B. Burt, Harold G. O. Holck, Fred S. Bukey)

NEW JERSEY

Rutgers University, The State University of New Jersey, New Jersey College of Pharmacy, Newark; Ernest Little, Dean (1923).

(Ernest Little, George C. Schieks)

NORTH CAROLINA

University of North Carolina, School of Pharmacy, Chapel Hill; J. Grover Beard, Dean (1917).

(J. Grover Beard, Henry M. Burlage, Marion L. Jacobs)

NORTH DAKOTA

North Dakota Agricultural College, Division of Pharmacy, Fargo; William F. Sudro, Dean (1922).

(William F. Sudro, Mattys Jongeward, Kenneth Redman)

OHIO

Ohio Northern University, College of Pharmacy, Ada; Rudolph H. Raabe, Dean (1925).

(Rudolph H. Raabe)

Ohio State University, College of Pharmacy, Columbus; Clair A. Dye, Dean (1906).

(Clarence M. Brown, Robert L. McMurray)

Western Reserve University, School of Pharmacy, Cleveland; Edward Spence, Dean (1902).

(Edward D. Davy, Leroy D. Edwards)

OKLAHOMA

University of Oklahoma, School of Pharmacy, Norman; David B. R. Johnson, Dean (1905).

(David B. R. Johnson, Loyd E. Harris, Ina L. Griffith)

OREGON

North Pacific College of Oregon, School of Pharmacy, Portland; Antone O. Mickelsen, Dean (1914).

(Antone O. Mickelsen)

Oregon State Agricultural College, School of Pharmacy, Corvallis; Adolph Zieffe, Dean (1915).

PENNSYLVANIA

Duquesne University, School of Pharmacy, Pittsburgh; Hugh C. Muldoon, Dean (1927).

(Hugh C. Muldoon, Earl P. Guth, Stanley P. Porter, Ralph R. Kreuer)

INSTITUTIONS AND INDIVIDUALS WHOSE MEMBERSHIP IS ON THE ASSOCIATION WITH NAMES OF MEMBERS WHOSE ATTENDANCE AT THE MEETING

Philadelphia College of Pharmacy and Science, Philadelphia; Dear Sirs (1929).

(Hear Schmitt, Francis F. Hill, Fulkerson Cook, Arthur Goddard, Dunn, Adley B. Nichols, John D. Denny)

Temple University, School of Pharmacy, Philadelphia; H. Sweet Ham (1928).

(Hear Sweet Ham, Robert L. Jones, Arthur E. James, James C. Jones, University of Pittsburgh, Pittsburgh College of Pharmacy, Pittsburgh; Leonard O'Donnell, Dean (1928). (G. Leonard O'Donnell, Leonard E. O'Donnell, Louis Smith, Edward C. Hall)

Pennsylvania University of the Philippines, College of Pharmacy, Manila; Mariano V. de la Cruz, Dean (1917).

Puerto Rico University of Puerto Rico, College of Pharmacy, Rio Piedras; Louis E. Jones, Dean (1918).

Rhode Island Rhode Island College of Pharmacy and Allied Sciences, Providence; W. Henry Riverd, Dean (1928). (W. Henry Riverd)

South Carolina University of South Carolina, School of Pharmacy, Columbia; Emory T. Motley, Dean (1928). (Emory T. Motley)

South Dakota South Dakota State College, Division of Pharmacy, Brookings; Earl R. Series, Dean (1928). (Earl R. Series, Floyd J. Lillness, Clark T. Eldance, Lovell D. Hines)

Tennessee University of Tennessee, School of Pharmacy, Memphis; Robert L. Cross, Dean (1916).

(Robert L. Cross, A. John Roberts)

Texas University of Texas, College of Pharmacy, Austin; William F. Gilder, Dean (1929).

Virginia Medical College of Virginia, School of Pharmacy, Richmond; Worley F. Reid, Dean (1928). (Worley F. Reid, Thomas D. Rowe)

Washington State College of Washington, School of Pharmacy, Pullman; P. E. Dinsdale, Dean (1918). (P. E. Dinsdale, Hamilton Bang, Minnie L. Meyer, Hugh C. Vincent)

University of Washington, College of Pharmacy, Seattle; Charles W. Johnson, Dean (1921). (Charles W. Johnson, Henry A. Lonsdale, Forrest J. Goodrich, L. Watt Ring, James M. Hill, Elmer M. Thain, R. P. Abbott, Dorothy Bell, Lloyd Highten, C. E. Miller)

West Virginia West Virginia University, College of Pharmacy, Morgantown; J. Lester Harman, Director (1928). (J. Lester Harman, Gordon A. Berry)

Wisconsin University of Wisconsin, School of Pharmacy, Madison; Arthur H. Um, Director (1928). (Arthur H. Um, Edward Krenner, Lloyd M. Facke)

With the completion of Volume II, the Editor wishes to again express his appreciation for the spirit of kindness and helpfulness which has been given him on every hand in the publication of this Journal. And in doing so he is not forgetting the loyal support that has come from the advertisers, The Williams and Wilkins Company, The McGraw Hill Book Company, Inc., and The Blakiston's Sons Company, Inc. With the continuation of the same spirit the Editor pledges every effort to make Volume III worthy of your continued support.

Rufus A. Lyman.

The Index for Volume II will be sent out with the January 1929 issue of the Journal.

